dAP technologies

Rugged Tablet Computer

User's Manual

M9020

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Preface

This manual contains information that will help you operate this rugged computer. It is divided into five chapters and two appendices.

- **Chapter 1: Getting Started**, takes you through the process of setting up your M9020 and identifying its external components.
- **Chapter 2: Operating Your M9020**, tells you how to use M9020's components and features.
- **Chapter 3: Connecting Your M9020**, provides information on installing and using peripheral devices.
- **Chapter 4: Managing Power**, provides information on power management.
- **Chapter 5: Expanding Your M9020**, provides information on installing and using optional accessories, such as docking stations, expansion modules, etc.
- **Appendix A**, provides technical specifications and information on caring for your M9020, and gives solutions to common problems you may encounter when using the device.
- **Appendix B**, provides regulatory information and safety notices on your M9020.

Notational Conventions

Throughout this manual, the following conventions are used to distinguish elements of text.

> **NOTE:** Identifies additional information that requires special attention.

> **CAUTION:** Identifies important information that, if not followed, may result in loss of data or damage to the device.

Hardware and keyboard keys are shown in a bold typeset. For example:

Press the **F1** key to complete.

A title, command, setup item, value, option, or button that you can see on the screen is shown in bold typeface. For example:

Select **When I press the power button**, set it to **Shut down**, and then tap the **Save changes** button.

CHAPTER 1

Getting Started

Congratulations on purchasing the DAP M9020. Its rugged design allows you to use it in harsh outdoor environments. You can use it under blazing heat, subzero cold, driving rain or dusty surroundings – places you could not take a consumer-grade tablet computer.

This chapter tells you, step by step, how to get the M9020 up and running. You will find instructions for the following procedures:

- Unpacking
- Device Overview (an explanation of the external components and their functions)
- Installing the Hand Strap
- Installing the SIM Card
- Installing Battery Packs and Connecting to AC Power
- Turning the M9020 On and Off

Unpacking

After unpacking the shipping carton, you should find these standard items. Inspect all items. If any item is damaged or missing, notify your dealer immediately.

√ M9020

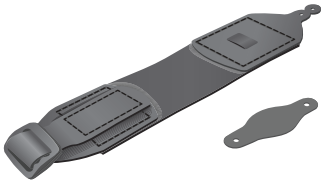
√ Battery Packs

√ Power Adapter

√ AC Power Cord

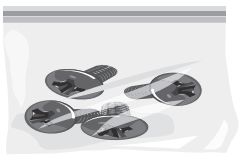
√ Stylus

√ Hand Strap



√ VGA Cable

√ Screws



√ Windows 7 Certificate of Authenticity Label (COA)

√ Quick Start Guide

Keep the shipping carton and packaging materials in case you need to ship or store the M9020 in the future.

> **NOTE:** Actual items may slightly differ depending on the purchased configuration.

Optional Items

√ Vehicle Dock

√ Battery Charger

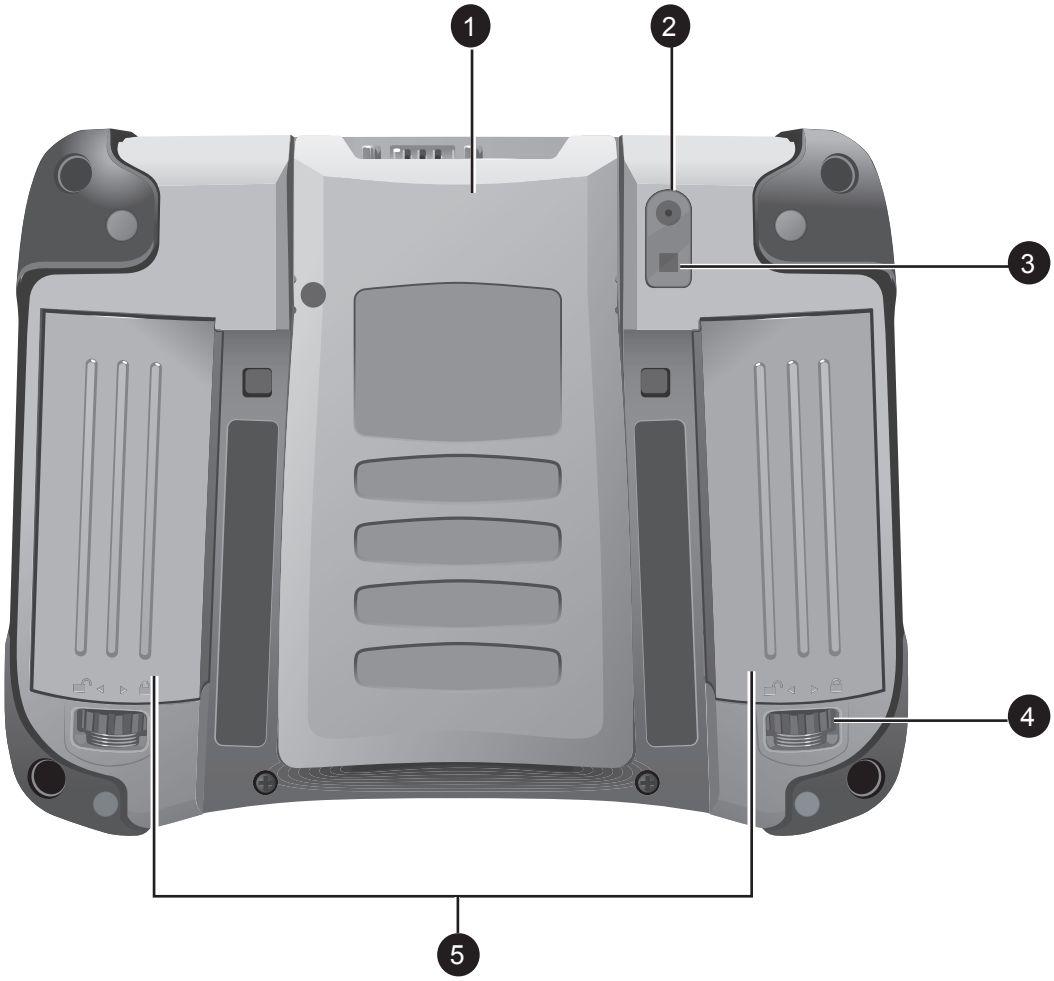
Device Overview

Front View

No.	Item		Description
1	2.0 MP Front Camera		Allows you to take photos.
2	Touchscreen		Glass-on-glass resistive touchscreen
3	Barcode Scanner Button	IIIII	Press to activate the barcode scanner located on the top left corner of M9020.
4	Menu and Function Keys		Common Windows function keys (F1 ~ F5, Menu).

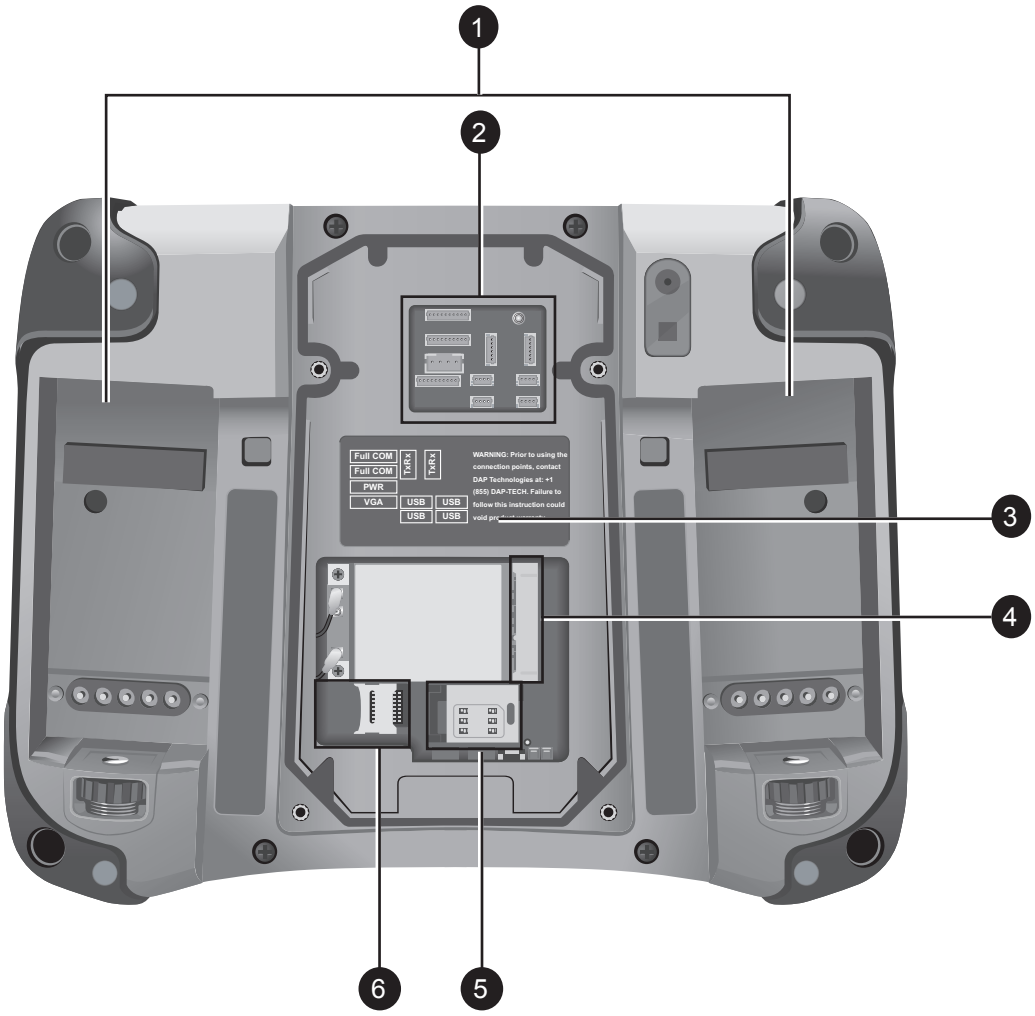
No.	Item		Description
5	LED		**Battery Mode (On Battery Power):** • Solid Green: *Power on*. • Blinking Greeen: *Suspend: Every 3 seconds*. • Blinking Red (The average of two batteries)**:** *- <= 20%, blinking interval 5s*. *- <= 15%, blinking interval 3s*. *- <= 10%, blinking interval 1s.* *- <= 5%, Hibernate.* *(Depends on OS setting).* • Solid Red: *Either Battery #1 or Battery #2 is missing*. **AC Mode (On External Power):** • Solid Green: *Fully charged: Both batteries are fully charged*. • Blinking Greeen: *Suspend: Every 3 seconds*. • Solid Blue: *Either battery is being charged.* • Solid Red**:** *- Faulty: Cannot charge.* *- Either Battery #1 or Battery #2 is missing.*
6	Keyboard		Integrated keyboard.
7	Power Switch		Press to turn on the M9020.
8	Speaker		Integrated speaker.
9	Camera Button		Press to access the front / rear camera feature.
10	Light Sensor		Provides automatic display brightness functionality.

Rear View (With Compartment Cover and Battery Packs)



No.	Item	Description
1	Compartment Cover	Covers the internal connectors. See the connectors in “Rear View (Without Compartment Cover and Battery Packs)” on page 1-7.
2	5.0 MP Rear Camera	Allows you to take photos.
3	Camera Flash	Provides flash lighting for use with the camera or just as an assisting light.
4	Battery Lock Latch	Rotate the latch to lock or unlock the battery pack.
5	Battery Packs	Supplies power to your M9020 when external power is not connected. **NOTE**: At least one battery pack is required to power up the M9020.

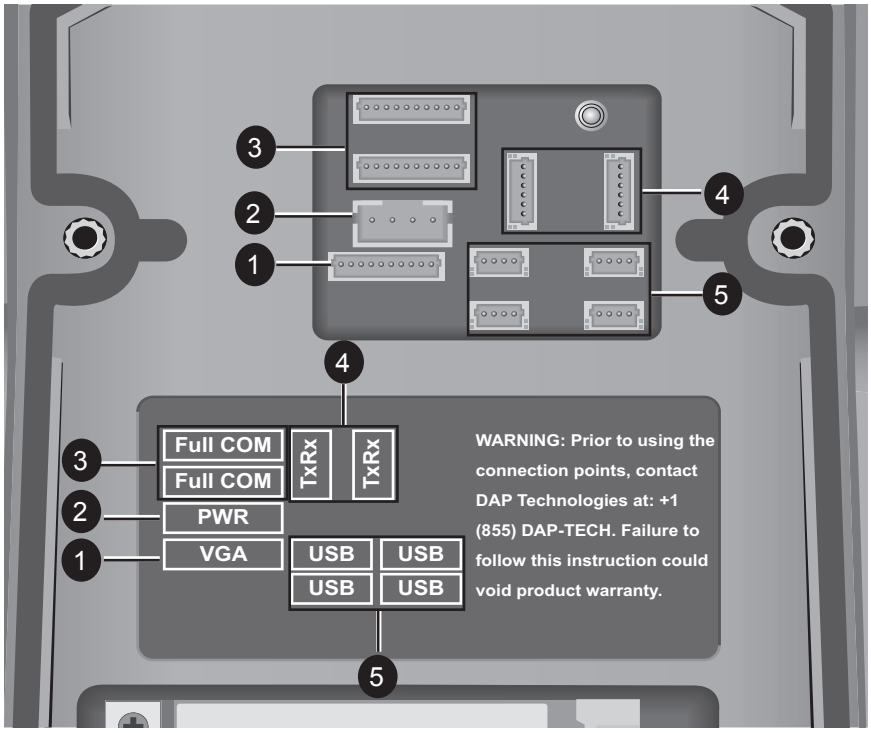
Rear View (Without Compartment Cover and Battery Packs)



No.	Item	Description
1	Battery Bays	Bays for battery pack installation.
2	Cable Connectors	See more “Cable Connectors Placement” on page 1-8.
3	Cable Connectors Location Label	This label includes information about the connector placement under the compartment cover.
4	WWAN Card Connector	Connection for the WWAN card. **NOTE**: On the illustration the WWAN card is already connected.
5	SIM Card Slot	For installation of a SIM card for WWAN data network connectivity.
6	MicroSD card slot	For installation of a Micro SD memory card.

Cable Connectors Placement

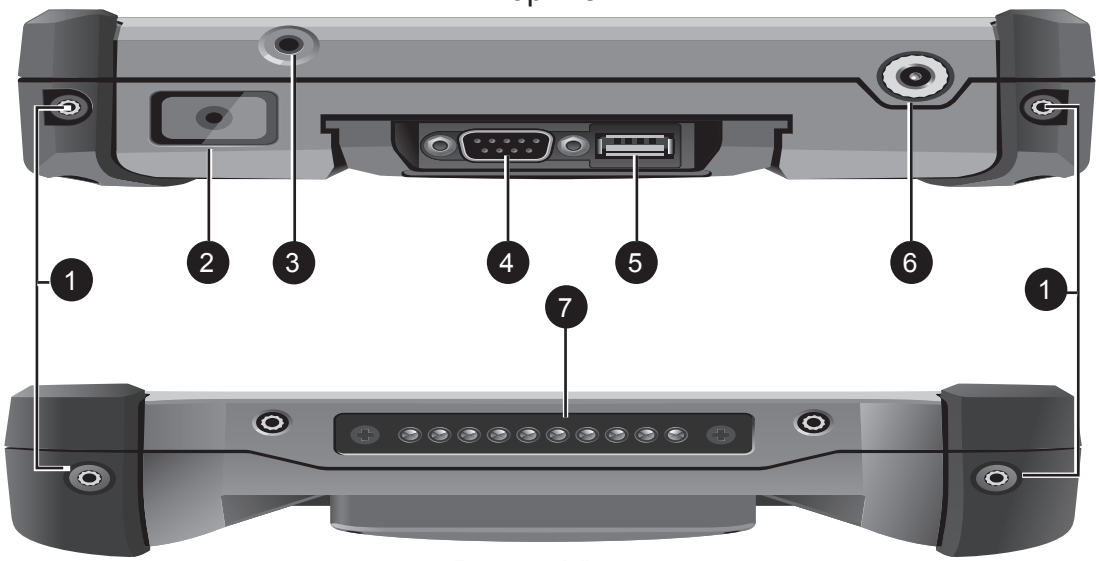
The cable connectors are located under the compartment cover on the rear panel. The following image illustrates the connector locations.



No.	Item
1	VGA
2	PWR
3	2x Full COM
4	2x TxRx
5	4x USB

Top and Bottom View

Top View



Bottom View

No.	Item	Description
1	Screw Holes for Hand Strap	To attach the hand strap to the side of the M9020.
2	Barcode Reader	For reading 1D/2D barcodes.
3	Audio Connector	Connects to a stereo headset, external speakers, or an audio recording device.
4	RS-232 Connector	Connection for serial devices, such as a scanner, printer, etc.
5	USB Port	Connection for USB 2.0 compatible devices such as a USB storage.
6	Power Connector	Connects to the AC adapter.
7	Docking Connector	Connects to a docking station (optional).

Installing the Hand Strap and Stylus

Your M9020 comes with a stylus for use with the touch screen.

For storing the stylus, you need to attach the supplied hand strap to your M9020.

Perform the following to prepare and install the hand strap and stylus to your M9020:

1. Align the screws on the hand strap with the screw holes on the top and bottom of M9020.
2. Use the tip of the stylus to attach the screw on the hand strap to the screw hole on top of M9020.

3. Repeat step 2 for the bottom side of M9020.

4. Insert the stylus into the stylus loop on the hand strap.

Removing the Stylus

Pull the stylus by its tab to remove it from the hand strap.

Releasing the Compartment Cover

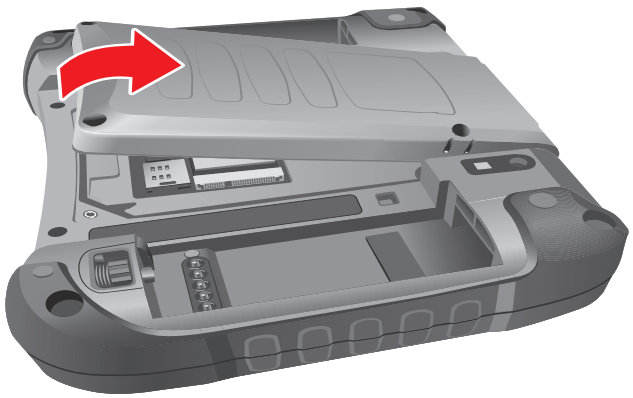
To access the connectors under the compartment cover, you need to release the cover first.

Perform the following to release the compartment cover:

1. Use the tip of the stylus to release the four (4) screws on the compartment cover.

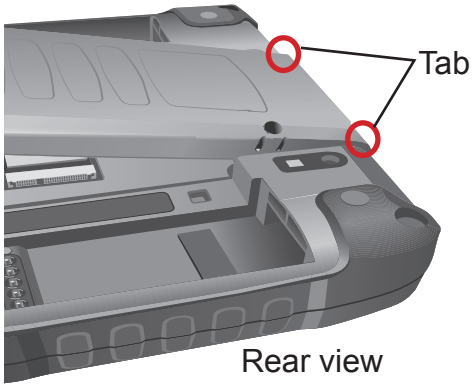
> **CAUTION:** Avoid damaging the internal cable connectors. RS-232 and USB cables are connected to the motherboard under the compartment cover.

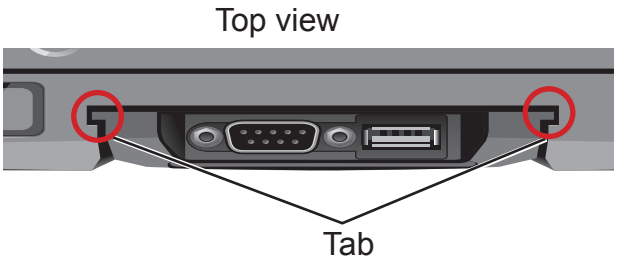
2. Lift the cover in an angle as shown.



Tightening the Compartment Cover

After the connections are complete, slide the tabs on the compartment cover into the slots on the top of the M9020.



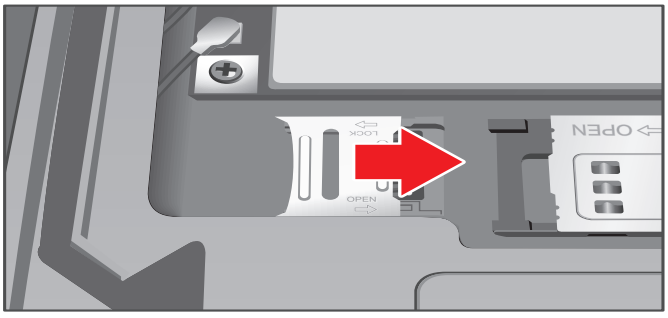


Installing the Memory Card

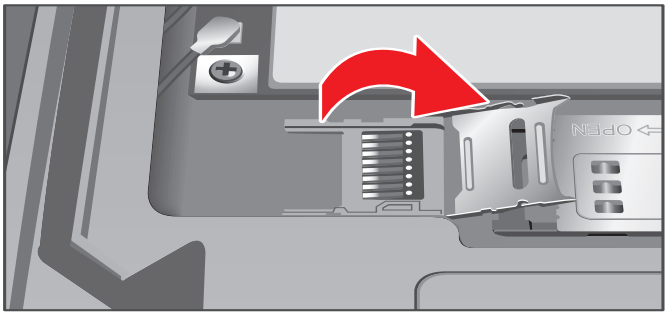
The M9020 has a memory card slot for additional storage space.

Perform the following to install a microSD card in your M9020:

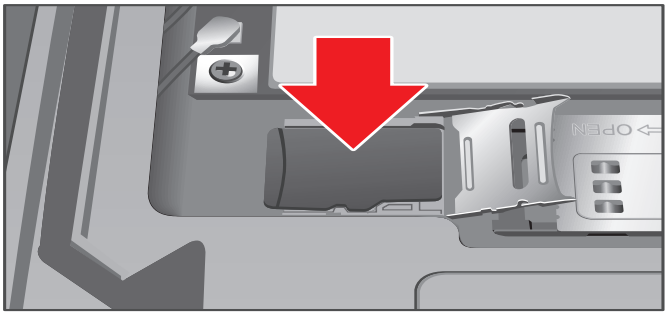
1. Release the compartment cover. See “Releasing the Compartment Cover” on page 1-12.
2. Slide the microSD socket cover to the “**OPEN**” direction.



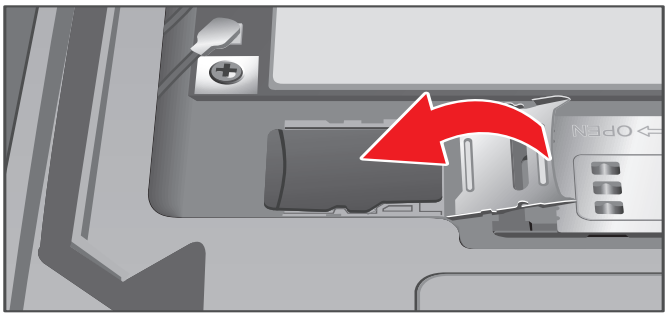
3. Open the socket cover.



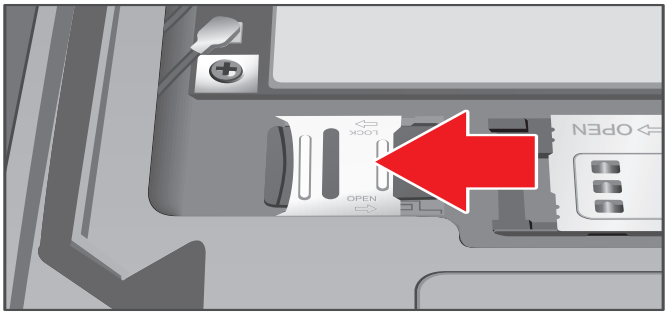
4. Place the microSD card into the socket, connectors facing the golden socket connectors.



5. Close the microSD socket cover.



6. Slide the microSD socket cover to the "**LOCK**" direction.



7. Tighten the compartment cover. See "Tightening the Compartment Cover" on page 1-13.

Removing the Memory Card

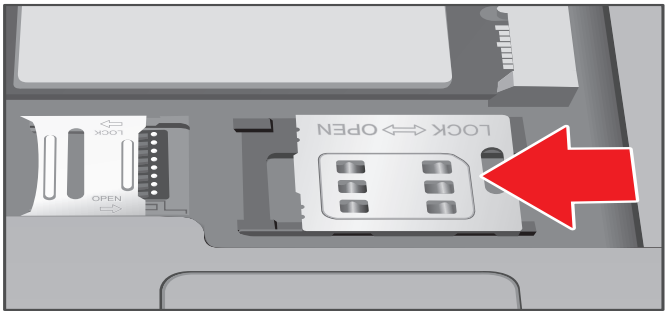
Follow the microSD card installation steps in reverse order, to remove the microSD card.

Installing the SIM Card

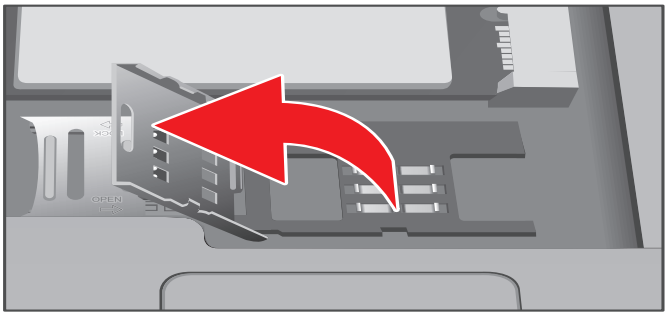
The M9020 supports data connection using WWAN SIM cards.

Perform the following to install the SIM card in your M9020:

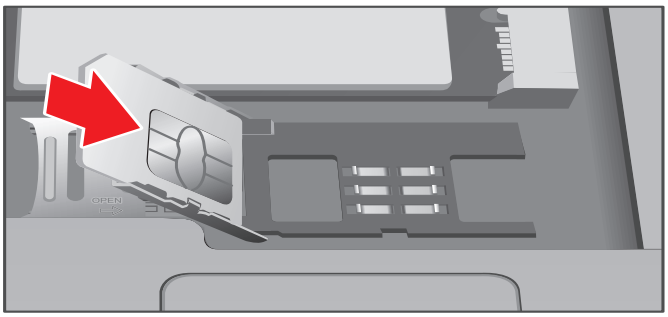
1. Release the compartment cover. See “Releasing the Compartment Cover” on page 1-12.
2. Slide the SIM card holder to the “**OPEN**” direction.



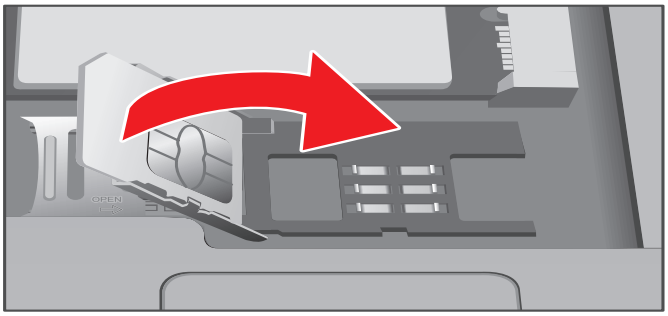
3. Open the SIM card holder as shown.



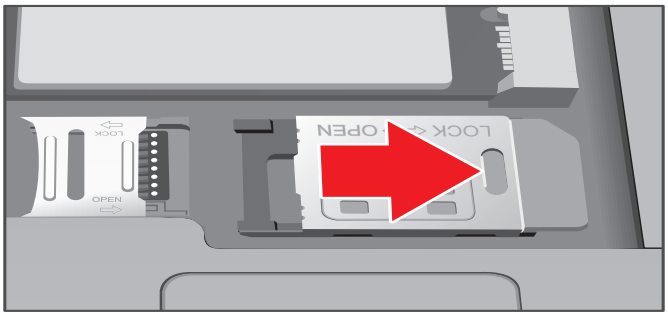
4. Insert the SIM card into the holder. Make sure the golden contacts face the socket.



5. Close the SIM card holder.



6. Slide the SIM card holder to the "**LOCK"** direction.



7. Tighten the compartment cover. See "Tightening the Compartment Cover" on page 1-13.

NOTE:

- For more information on connecting to a WWAN network, see "Connecting to a WWAN Network" on page 2-17.

Removing the SIM Card

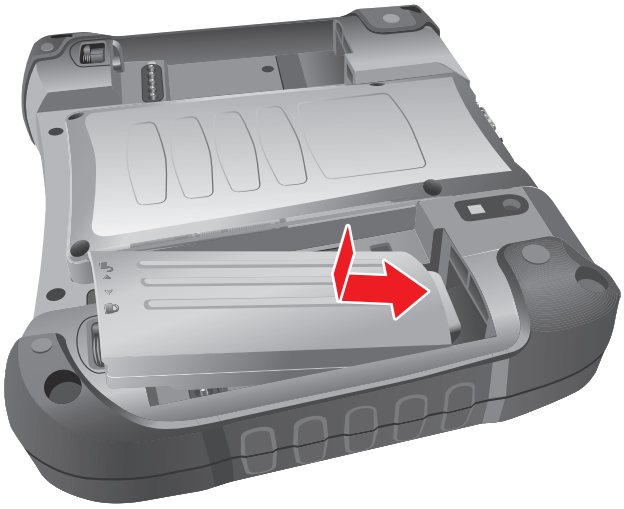
1. Turn off the M9020 (see "Turning On" on page 1-20).
2. Follow the SIM card installation steps in reverse order, to remove the SIM card. See "Installing the SIM Card" on page 1-15.

Installing the Battery Pack

> **NOTE:**
> - The battery pack(s) are hot-swappable.

Perform the following to install the battery pack to M9020:

1. From the top side of the battery pack, align and place the battery on its bay.
2. Press down on the battery pack.



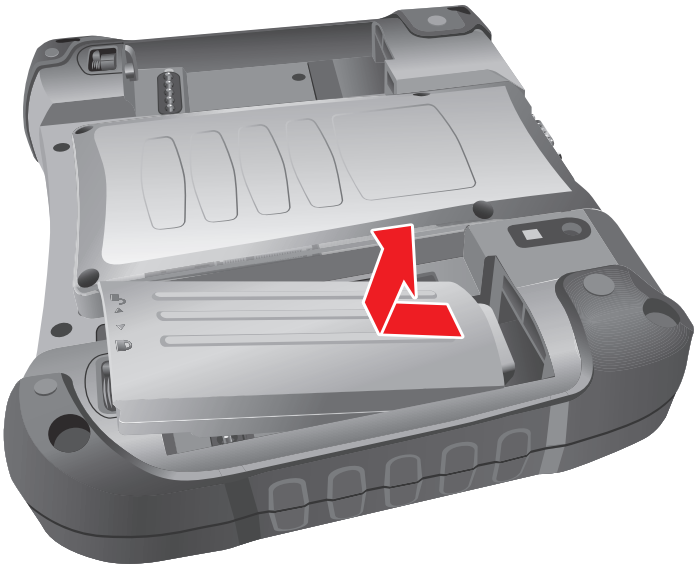
3. Press down on the battery pack and rotate the lock latch to the lock (🔒) direction, until the battery pack is fixed.

Removing the Battery Pack

Perform the following to remove the battery pack from M9020:

1. Rotate the lock latch to the unlock (🔓) direction, until the battery pack is released from the socket.

2. Release the battery pack from the bay, and remove.



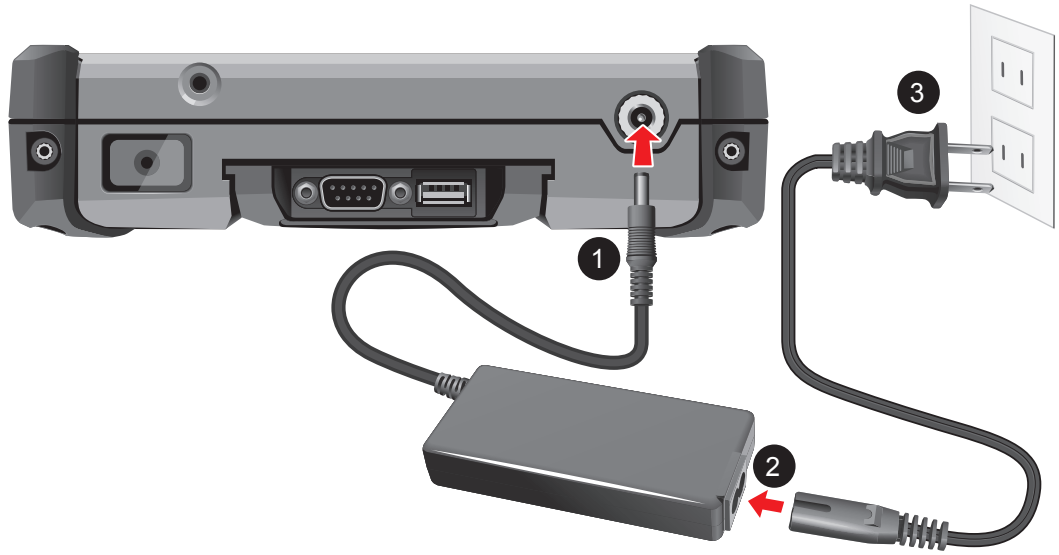
Connecting to AC Power

The M9020 operates either on external AC power or internal battery power. It is recommended to use AC power when you start up the device for the first time.

> **CAUTION:** Use only the AC adapter included with your M9020. Using other AC adapters may damage M9020.

Perform the following to connect the M9020 to AC power:

1. Plug the DC cord of the AC adapter into the power connector of the M9020.
2. Plug the female end of the AC power cord into the AC adapter.
3. Then plug the male end of the AC power cord into an electrical outlet.



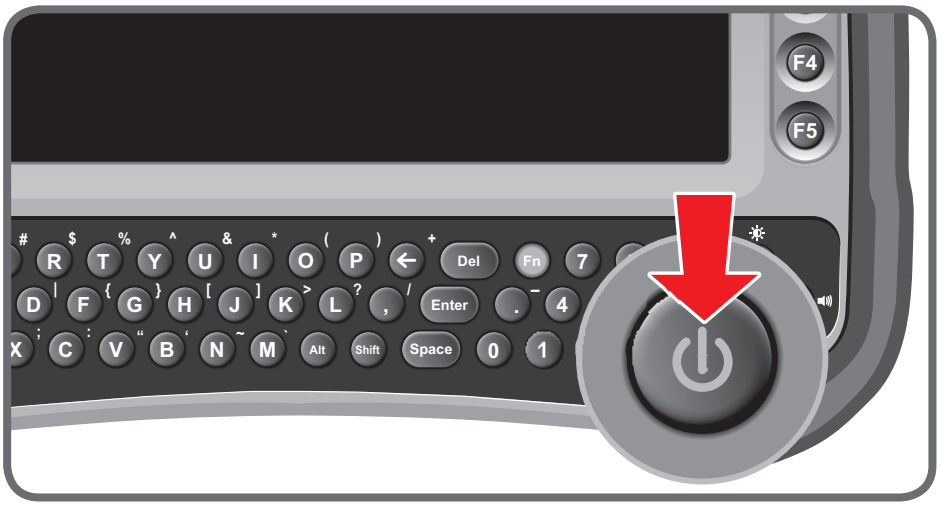
When the AC adapter is connected, the battery pack is charging.

> **CAUTION:**
> - When you disconnect the AC adapter, disconnect from the electrical outlet first and then from M9020. A reverse procedure may damage the AC adapter or M9020.
> - When unplugging the connector, always hold the plug head. Never pull on the cord.

Turning the M9020 On and Off

Turning On

1. Make sure that the M9020 is either connected to AC power or that the battery pack is charged.
2. Press and hold the power button (⏻) for about 5 seconds, until the power LED lights up.



See the following table for the power LED indicator states:

LED Color	Status	Battery Mode (On Battery Power)	AC Mode (On External Power)
Green	Solid	Power on.	Fully charged: Both batteries are fully charged.
	Blinking	Suspend: Every 3 seconds.	
Blue	Solid	N/A	Either battery is being charged.
Red	Blinking	(The average of two batteries) • <= 20%: every 5s. • <= 15%: every 3s. • <= 10%: every 1s. • 5%: Hibernate. (Depends on OS setting).	N/A
	Solid	Either Battery #1 or Battery #2 is missing.	N/A

Turning Off

To turn off the M9020, use the “**Shut Down**” command of your operating system.

> **CAUTION:** Wait for at least five seconds after turning off the M9020 before turning it back on.

When you finish a working session, you can stop the device by shutting it down or by leaving it in Sleep or Hibernation mode:

To stop in this mode...	Do this...
Off	Use the Windows Start Menu and follow the shut down procedure.
	You can force M9020 to turn off by pressing and holding the power button (⏻) for more than 6 seconds. This is not the recommended method, but may be necessary if the system is locked up.
Hybrid Sleep	Short press the power button (⏻) or use the Windows Start Menu to put M9020 in Hybrid Sleep mode.
Hibernation	Use the Windows Start Menu to put M9020 in hibernation mode.

Press the power button (⏻) to resume or turn on the M9020 from any of these modes. See “Power Management” on page 4-6 for more information.

CHAPTER 2

Operating Your Tablet Computer

This chapter provides information about the use of the M9020 and describes the operating basics of the following components and features:

- Touch Screen
- Keyboard
- Panel Keys
- Wireless LAN Features
- Bluetooth Features
- Wireless WAN Features
- GPS Features
- Camera
- DAP Control Center
- Barcode Reader

Using the Touch Screen

The touch screen is a touch-sensitive device that allows you to control and make selections on the device by controlling the location of the pointer on the screen.

> **CAUTION:** Do not use sharp or pointed objects on the touch screen. These objects may scratch the screen. Use only the stylus pen or the tip of your finger.

Here are some common terms that you should know when using the touch screen.

Term	Action
Tap	Tap gently on the touch screen to select or open an item. Tapping is the same as clicking the left mouse button of a PC.
Double-tap	Rapidly tap twice on the touch screen. This action is similar to double-clicking the left mouse button of a PC.
Tap and hold	Tap and hold the stylus lightly on the display. A big circle appears to indicate that a pop-up menu will soon appear. Lift up the stylus and a pop-up menu appears. Select the desired function. This action is similar to a right mouse click on a PC.
Drag	Hold the stylus on the screen and drag across the screen to select text and images or move icons to a new location.

For more customized stylus settings, use the **HIDeGalaxTouch** available on the desktop of the device.

Calibrating the Screen

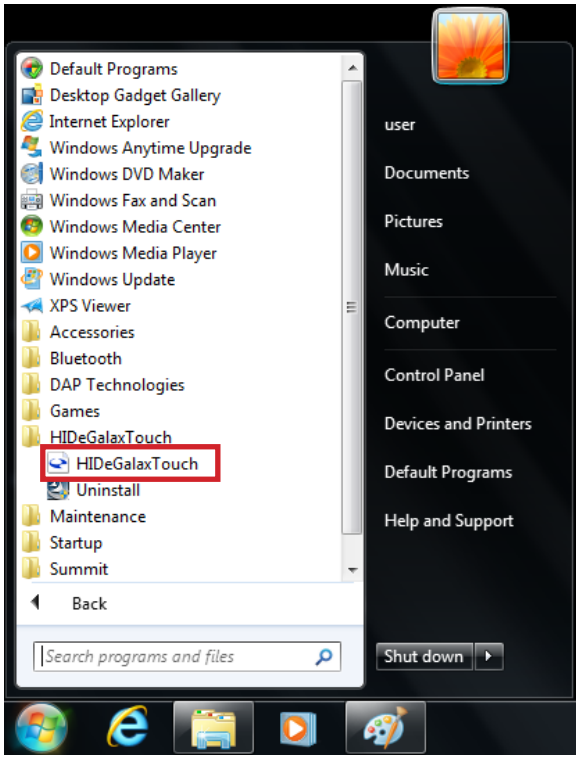
When there is a noticeable discrepancy in the placement of the stylus on the screen and the indicated position of the onscreen pointer, recalibrate the screen.

For calibration you can use the HIDeGalax Touch tool.

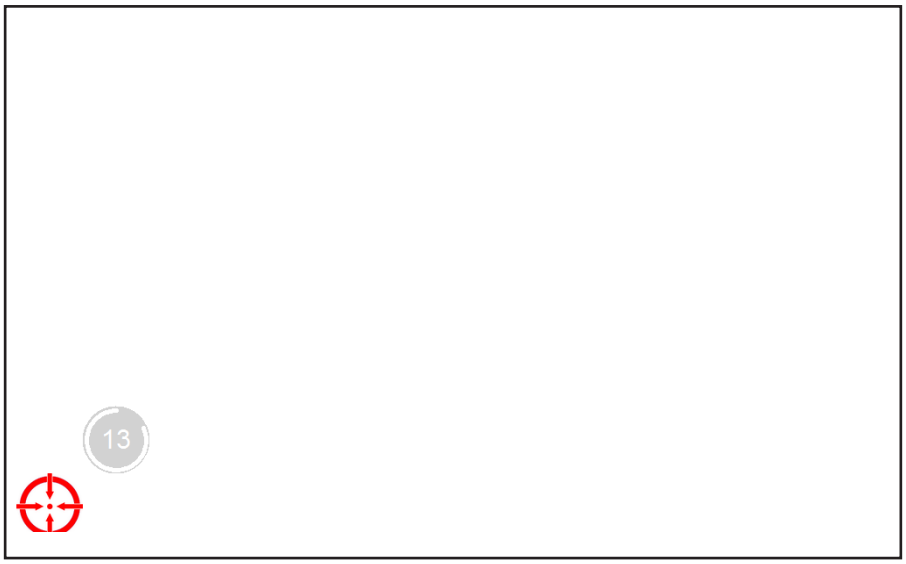
HIDeGalax Touch Calibration Tool

Perform the following to calibrate the screen:

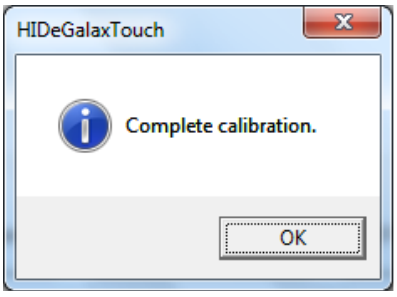
1. Tap **Start** > **All Programs** > **HIDeGalaxTouch** > **HIDeGalaxTouch**. The following screen opens.



2. For a basic test, tap **4 Points Calibration**, for more detailed one, tap **9 Points Linearization** or **25 Points Linearization**. The following example shows **4 Points Calibration**.



3. Use the supplied stylus to tap and hold the dot inside the red circle, until it turns into a blue circle. Repeat this process as the dot moves around the screen.
4. When calibration is complete, tap **OK** button and close the calibration utility screen.



Using the Integrated Keyboard

Your M9020 includes an integrated keyboard that allows you to enter text and perform various keyboard functions.

Keyboard Overview

Use the keyboard to type in text and numbers. If you need to use special symbols and functions, marked in *yellow* on the keyboard, press and hold the **Fn** key, and then press the corresponding symbol or function key. For example, to enter "%", press and hold **Fn** key and then press the corresponding letter "**T**".

Special Function Keys

The following is a list of special functions, accessible via keyboard.

Function	Description
Fn + ☼	Hold down **Fn** and press ▲ repeatedly to increase screen brightness.
Fn + ☼	Hold down **Fn** and press ▼ repeatedly to decrease screen brightness.
Fn + 🔊	Hold down **Fn** and press ► repeatedly to increases volume.
Fn + 🔉	Hold down **Fn** and press ◄ repeatedly to decreases volume.
Fn + **1**	Function key **F11**.
Fn + **2**	Function key **F12.**
Fn + **3**	Function key **F13.**
Fn + **4**	Function key **F14.**
Fn + **5**	Function key **F15.**
Fn + **6**	Function key **F6.**
Fn + **7**	Function key **F7.**
Fn + **8**	Function key **F8.**

Function	Description
Fn + **9**	Function key **F9.**
Fn + **0**	Function key **F10.**
NOTE: To access the function keys **F1 ~ F5,** see “Using the Panel Keys” on page 2-6.	

Navigation Keys

Use the navigations keys (◄ / ► / ▲ / ▼) to move the cursor or selection one space or line in the direction of the arrow, or scroll a webpage in the direction of the arrow.

Using the Panel Keys

The Panel Keys provide shortcuts for you to utilize the common functions of your M9020, such as opening the camera, activating the bar code reader, and more.

No.	Button	Description
1	Barcode Scanner	Press and hold, to scan the barcode.
2	**F3**	Programmable funciton key.
3	**F4**	Programmable funciton key.
4	**F5**	Tap to refresh the active window in Internet Explorer.
5	**F2**	Programmable funciton key.
6	**F1**	Programmable funciton key.

No.	Button	Description
7	Menu	Tap to open the Start menu.
8	Camera	Press to open the camera application. How to use the camera, see “Using the Camera” on page 2-26.

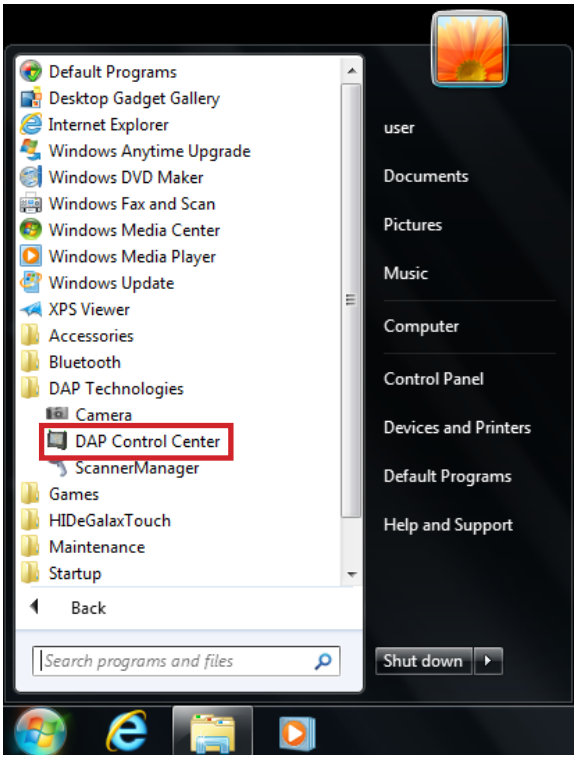
Using Wireless LAN

Your M9020 has a built-in wireless radio which automatically detects wireless networks that are within range.

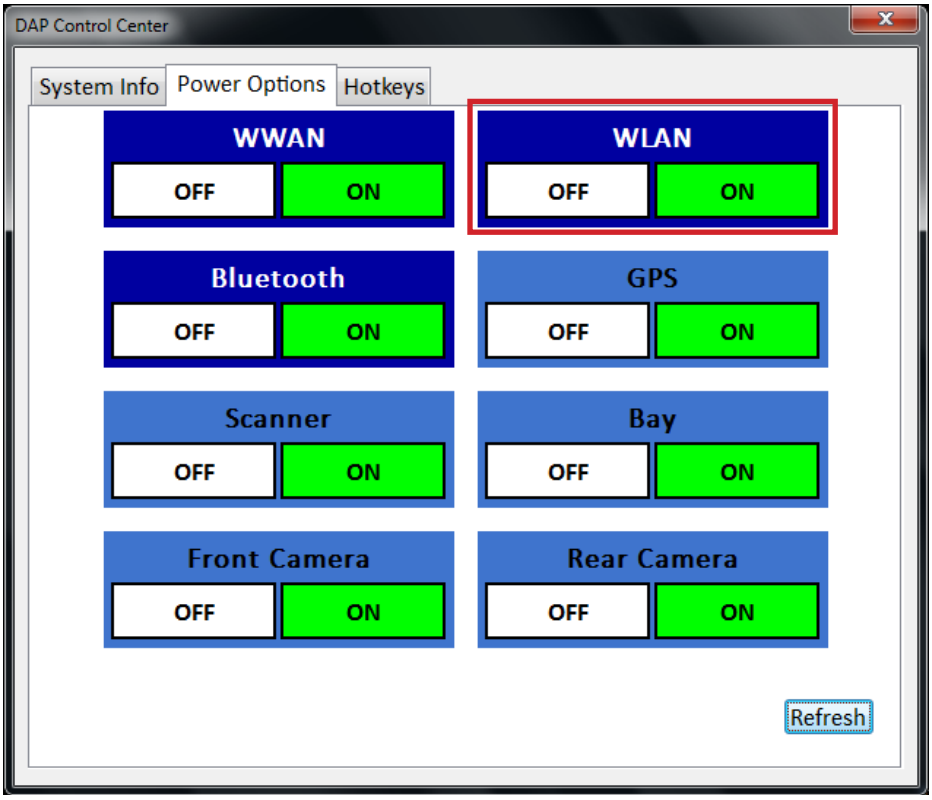
Turning the Wireless Radio On and Off

By default, the Wi-Fi is turned on. In case you need to turn it on or off, perform the following:

1. Tap **Start** > **All Programs** > **DAP Technologies** > **DAP Control Center**.



2. Select the **Power Options** tab.

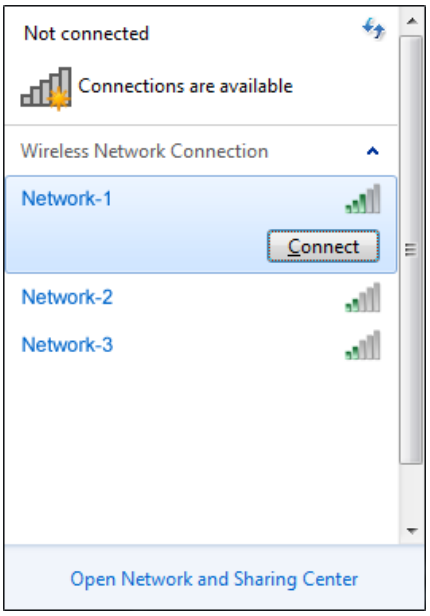


3. To turn the Wi-Fi on or off, tap **ON** or **OFF** in the corresponding box.

Connecting to a Wireless Network

Perform the following to connect to a wireless network:

1. Make sure that the WLAN is ON (The Wireless network icon on the task bar shows).
2. Tap the Wireless Network icon ( ) on the taskbar.
3. From the list of available networks, select a network.



4. Tap **Connect**.
5. If the network requires authentication, enter the security key or passphrase.

NOTE:

- Once you are connected to a wireless network, Windows saves the network profile and will automatically connect to that network when it is in range.
- For more information on connecting to your wireless network, contact your network administrator.

Using Bluetooth

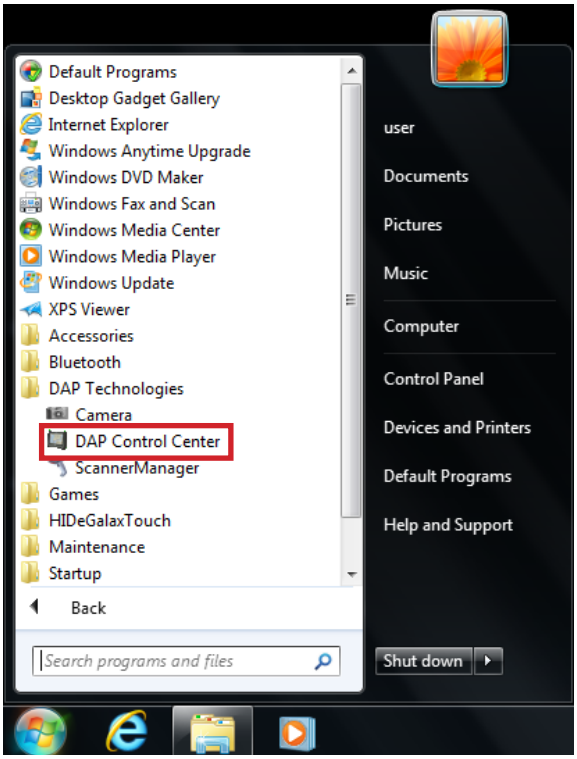
Your M9020 has integrated Bluetooth capability for short-range wireless communication between Bluetooth-enabled devices.

By default, the Bluetooth feature is enabled as indicated by the Bluetooth icon ( ) on the taskbar; but your M9020 is not visible to other devices. To make your M9020 visible, check the **Discovery** box in Bluetooth settings (see “Configuring Bluetooth Settings” on page 2-15).

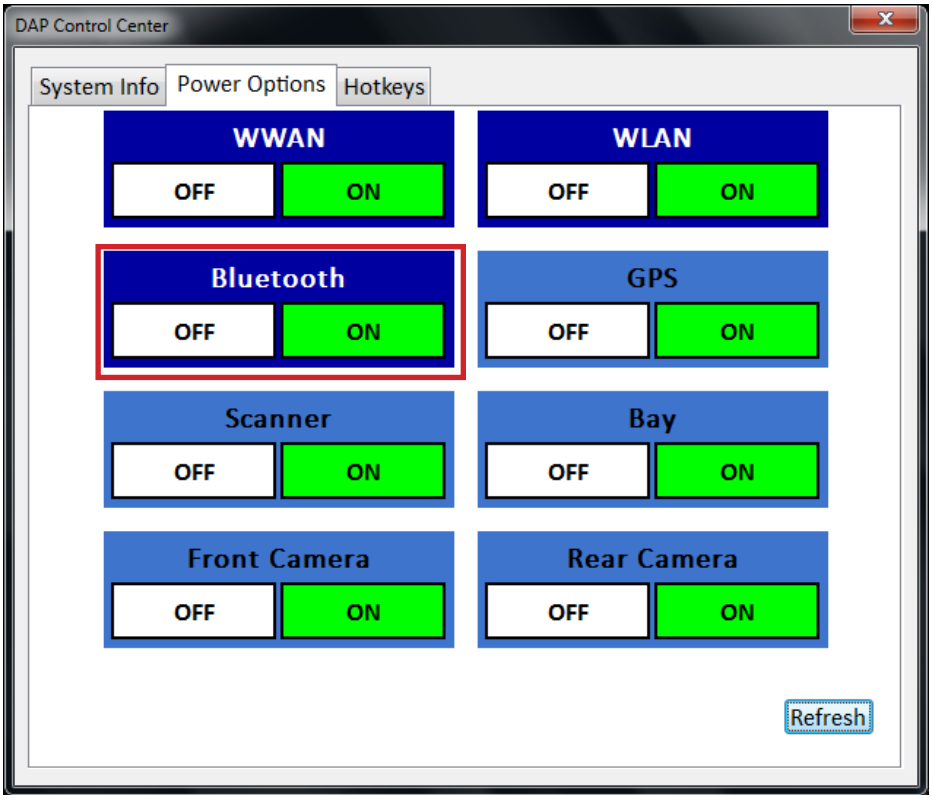
Turning the Bluetooth On and Off

In case you need to turn the Bluetooth on or off, perform the following:

1. Tap **Start** > **All Programs** > **DAP Technlogies** > **DAP Control Center**.



2. Select the **Power Options** tab.



3. To turn the Bluetooth on or off, tap **ON** or **OFF** in the corresponding box.

Turning the Bluetooth Adapter On and Off

In case you need to turn the Bluetooth adapter on or off, perform the following:

1. Tap the Bluetooth On ( ) or Bluetooth off ( ) icon on the taskbar.
2. A pop up menu appears. Tap **Turn adapter on** or **Turn adapter off**.

> **NOTE:** If the Bluetooth icon is not shown on the task bar, check that the Bluetooth is activated on DAP Control Center.

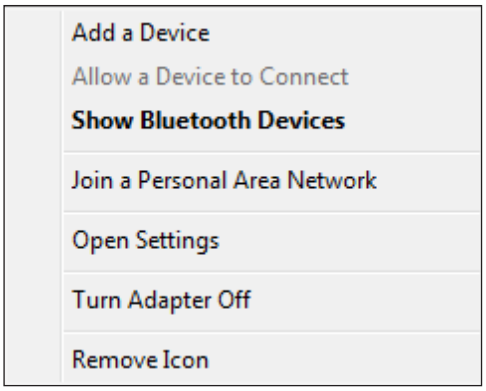
Pairing with Bluetooth Devices

Before you can pair with Bluetooth devices for the first time, you need to add and save the device profile to your M9020.

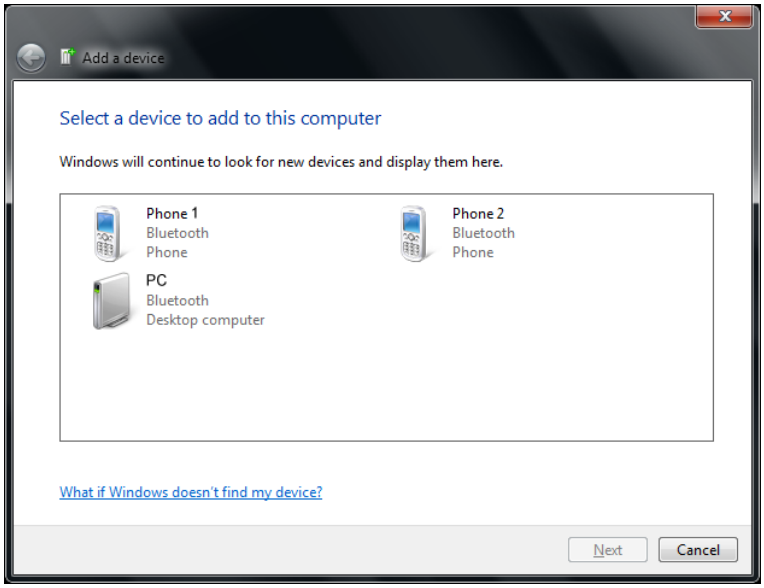
To add and pair a Bluetooth device

Perform the following to pair your M9020 with Bluetooth devices:

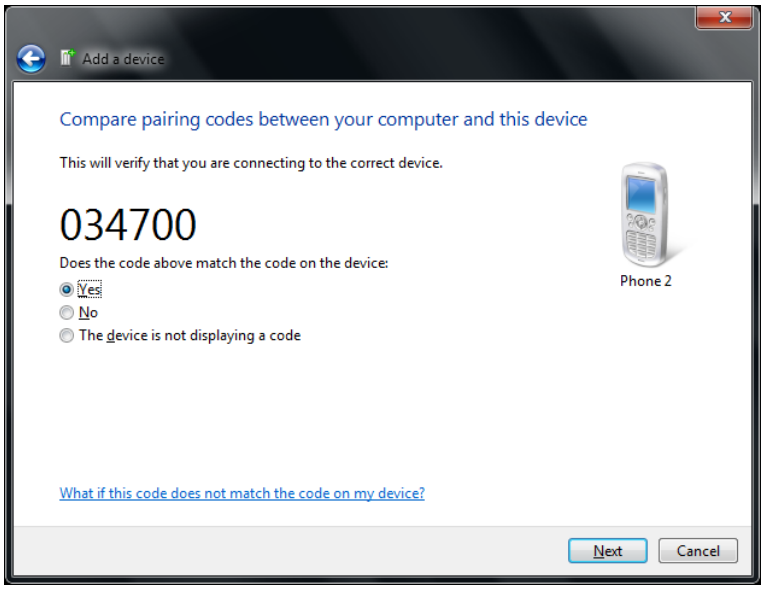
1. Make sure the Bluetooth adapter is on as indicated by the Bluetooth icon ( ) on the taskbar.
2. Tap the Bluetooth icon ( ) to display a pop up menu.



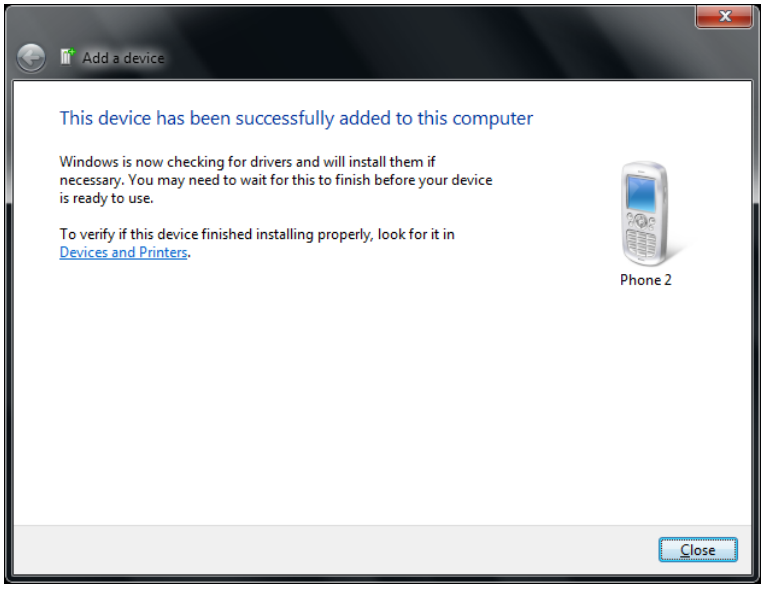
3. Tap **Add a Device**. The M9020 will scan for Bluetooth devices within range.
4. Select the device you want to pair with, then tap **Next**.



5. Depending on the device you are pairing with, you may be prompted to enter or verify a pairing code. The pairing code entered or shown on your M9020 must be the same as the one on the Bluetooth device. Click **Next** to continue.


Add a device
Compare pairing codes between your computer and this device
This will verify that you are connecting to the correct device.
034700
Does the code above match the code on the device:
Yes
No
The device is not displaying a code
Phone 2
What if this code does not match the code on my device?
Next
Cancel

6. Windows will check for the device driver and install it, if necessary. Tap **Close** to close the screen.


Add a device
This device has been successfully added to this computer
Windows is now checking for drivers and will install them if necessary. You may need to wait for this to finish before your device is ready to use.
To verify if this device finished installing properly, look for it in Devices and Printers.
Phone 2
Close

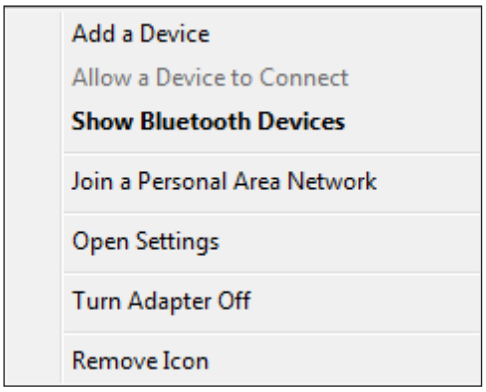
> **NOTE:** For more information on using Bluetooth features, see Windows online help.

To reconnect to a Bluetooth device

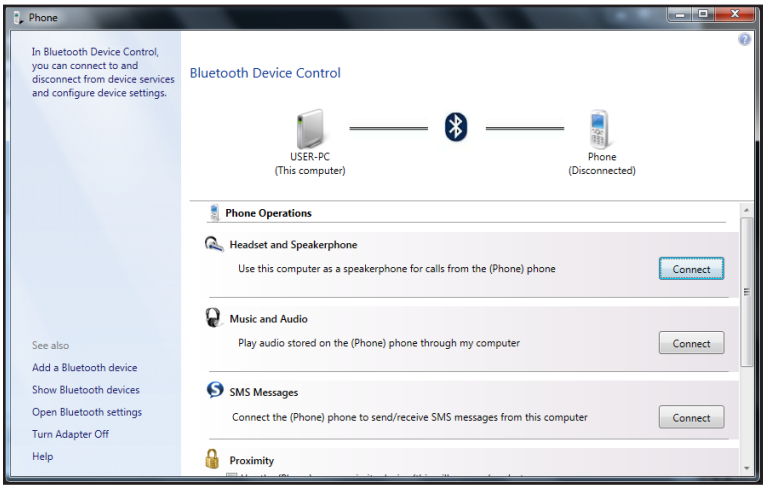
Once a Bluetooth device has been paired with your M9020, you do not need to enter or verify the pairing code as you did the first time.

To reconnect to a Bluetooth device, perform the following:

1. Make sure the Bluetooth adapter is on as indicated by the Bluetooth icon ( ) on the taskbar.
2. Tap the Bluetooth icon ( ) to display a pop up menu.

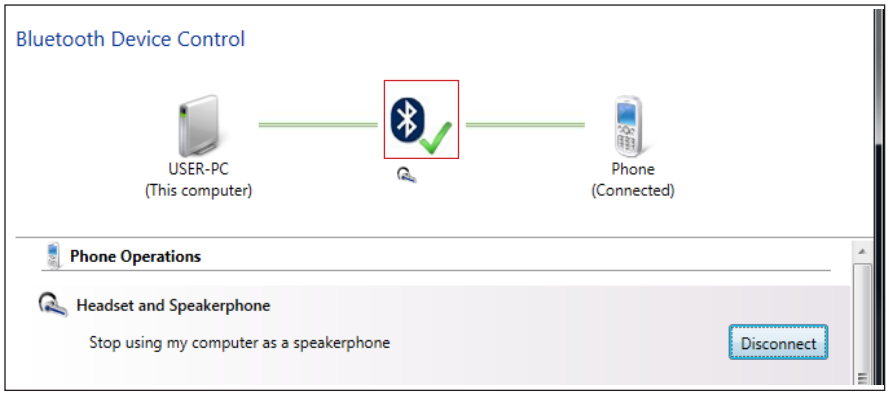


3. Tap **Show Bluetooth Devices**.
4. Double-tap the icon of the desired Bluetooth device. The Bluetooth Device Control screen opens.



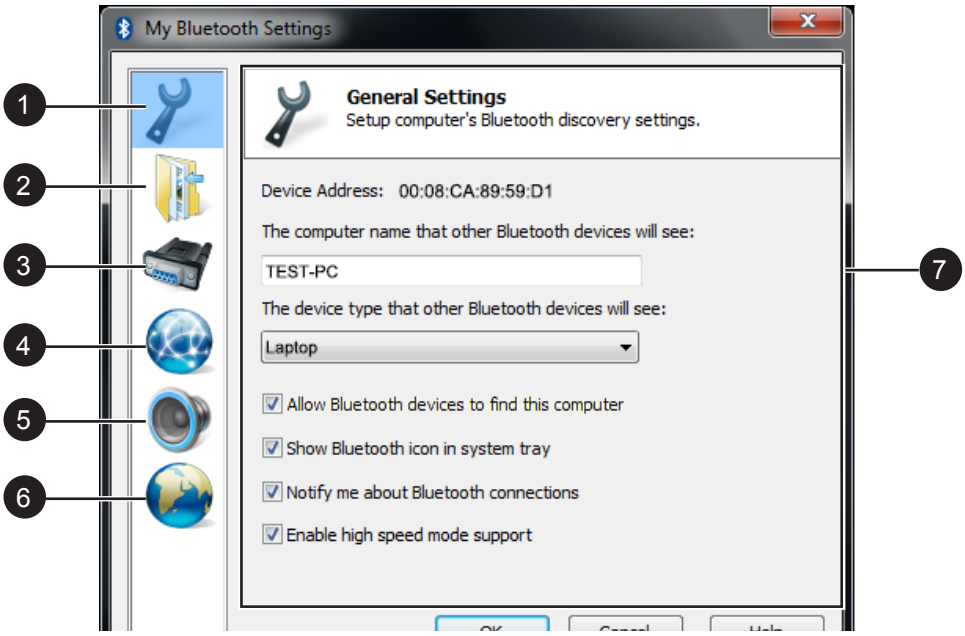
5. Tap the applicable connection operation (for example, Headset and Speakerphone).

   When the connection is established, a “green” check mark appears next to the Bluetooth logo.



Configuring Bluetooth Settings

The Bluetooth Settings allows you to configure how you want to connect to Bluetooth devices, sync data, and other options. To access the settings, open **My Bluetooth**, and then tap **My Bluetooth Settings**.



Tap a menu from the left panel to display the relevant settings on the right.

	Menu	Description
1	General Settings	Configures M9020 name and type, enable visibility, notification options, and enable high speed mode support.

	Menu	Description
2	File Transfer Settings	Configures the folder location of incoming files and enable sharing of files with connected Bluetooth devices.
3	Serial Port Settings	Configures virtual serial ports to be used by M9020.
4	Network Settings	Enables networking via Bluetooth connection.
5	Audio Settings	Selects how you want to play audio files through M9020 and enable Skype switching.
6	Language Settings	Selects the Bluetooth interface language.
7	Settings page	Displays the relevant settings to configure. Tap **OK** to apply changes and close the screen.

Using the WWAN Network

The M9020 has optional WWAN network capabilities that provide wireless connection to the Internet using a SIM card with data subscription.

Connecting to a WWAN Network

Your M9020 comes with Sierra Wireless AirCard® Watcher, an application that allows you to connect to the Internet using your SIM card and keeps you informed of your wireless connection status. Perform the following to connect to your WWAN network:

1. Install a SIM card on your M9020 (see “Installing the SIM Card” on page 1-15).
2. Open the AirCard® Watcher application (tap **Start** > **All Programs** > **Sierra Wireless** > **AirCard Watcher**).

   The application detects the SIM card and displays network information on the AirCard® Watcher main screen.

> **TIP:** To open AirCard® Watcher faster, create a desktop shortcut icon. Alternatively, you can set AirCard® Watcher to open and connect automatically with your WWAN network (see “To configure WWAN network profiles” on page 2-21).

3. Tap **Connect** to connect to the WWAN network.

   Once connected, the AirCard® Watcher main screen displays the network connection information, such as signal strength, connection speed, and bitrate transfer. For more information on using the application, see “Using AirCard® Watcher” on page 2-18.

Using AirCard® Watcher

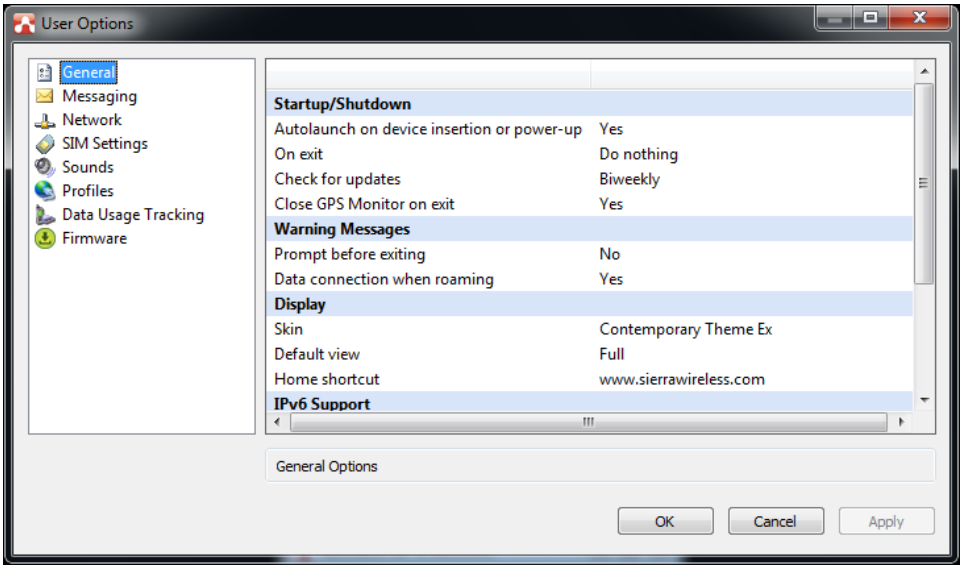
The AirCard® Watcher main screen

No.	Item	Description
1	WWAN Connection	• **Green**: WWAN network is connected. • **Red**: WWAN network is disconnected.
	Signal Strength	• **Green**: Indicate the network signal strength. More lit bars indicate stronger signal. • **Red**: No signal.
	Network Type	Indicates the network connection type.
2	Toolbar	Tap an icon to access the function.
	Wireless Profile	Tap to view and modify wireless network profile.
	SMS	Tap to open **SMS Express** to send and receive SMS messages on your M9020. **NOTE:** Your data plan subscription must support this feature to be able to send and receive SMS messages on your M9020.
	History	Tap to view the usage history and clear the bitrate counters.
	Airplane Mode	Tap to enable airplane mode. When this feature is enabled, the icon turns red. Tap the icon again or tap **Turn Radio On** to disable airplane mode.

No.	Item	Description
2	AirCard GPS	Tap to open AirCard GPS Monitor.
	Settings	Tap to access the AirCard® Watcher settings. See “Configuring AirCard® Watcher Settings” on page 2-20.
	Help	Tap to view the help file.
3	Network Name	Displays the name of the SIM card network provider.
4	Data Transfer Rate	Displays the upstream and downstream transfer information.
5	Home	Tap to open the Sierra Wireless website.
6	Speed Graph	Tap to show a graphical display of the data transfer speed.
7	Menu	Tap to access the application menu.
	Minimize	Tap to minimize the application to the system tray.
	Restore	Tap to toggle the display between full view and compact view.
	Close	Shuts down the application.
8	Connect / Disconnect Button	Tap to connect or disconnect from the WWAN.
9	Network Info	A graphical display of the network connection type.
10	Speed	Indicates the network connection speed.
11	Customer Support	Tap to open Sierra Wireless support website.

Configuring AirCard® Watcher Settings

On the AirCard® Watcher main screen, tap the Settings ( ) icon to display the screen below.



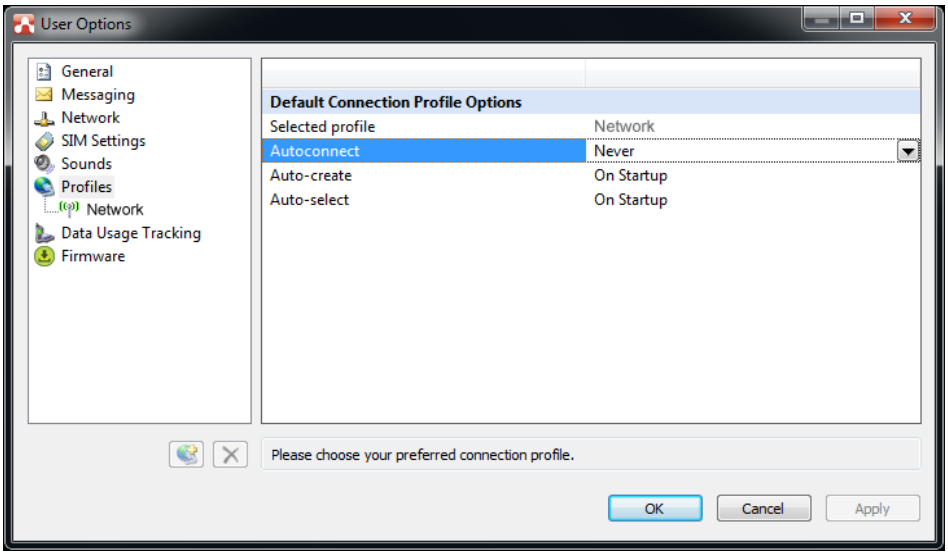
Tap a menu item on the left panel to display the corresponding settings on the right. The following menus are available:

Menu	Description
General	Configures startup/shutdown settings, warning messages, display properties, and others.
Messaging	Configures message settings such as service center number, default storage, and message notification.
Network	Configures network mode and radio technology.
SIM Settings	Enables SIM security settings.
Sounds	Enables sound alert when network is connected, disconnected or when a new message is received.
Profiles	Configures network profiles and auto-connect functions. See “To configure WWAN network profiles” on page 2-21.
Data Usage Tracking	Enables data usage tracking and configures data subscription rate plan settings. This feature helps manage and control internet usage when you have a subscription plan with a limited data rate
Firmware	Displays firmware information.

To configure WWAN network profiles

Once a SIM card is used in your M9020, its network profile is created. You can view network information, such as profile name, access point name (APN), TCP/IP settings, and more. You can also set AirCard® Watcher to automatically connect to the WWAN at startup.

1. On the AirCard® Watcher main screen, tap the Wireless Profile ( ) icon.



2. On the **Profiles** menu, the following items are displayed:
   - **Selected profile**: Displays the name of your WWAN network.
   - **Autoconnect**: Tap the field and then select one of the following:
     - Never: Do not auto-connect to network.
     - While not roaming: Automatically connects to network while within the local network coverage.
     - Always (even when roaming): Automatically connects to network even when roaming outside the local network coverage.

     > **NOTE:** Connecting to your network while roaming may incur additional charges. Check with your service provider for details.

   - **Auto-create**: Tap to automatically create a connection profile when using a new SIM card.
   - **Auto-select**: Tap to automatically select the best connection profile for the current SIM.
3. Tap **Apply** to save the settings.
4. To configure specific parameters related to your connection, tap the network name on the left panel.
5. Tap **OK** to close the screen.

Using GPS

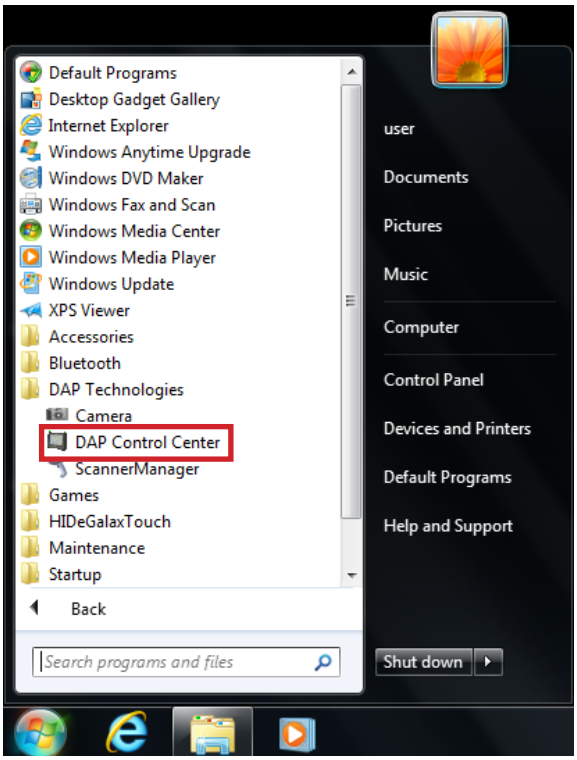
Your M9020 is equipped with GPS (Global Positioning System) capabilities to determine your location and aid in the presentation and analysis of GPS information.

Before using the GPS, make sure the GPS radio is enabled on 'DAP Control Center' and on 'Location and Other Sensors'. See more information below.

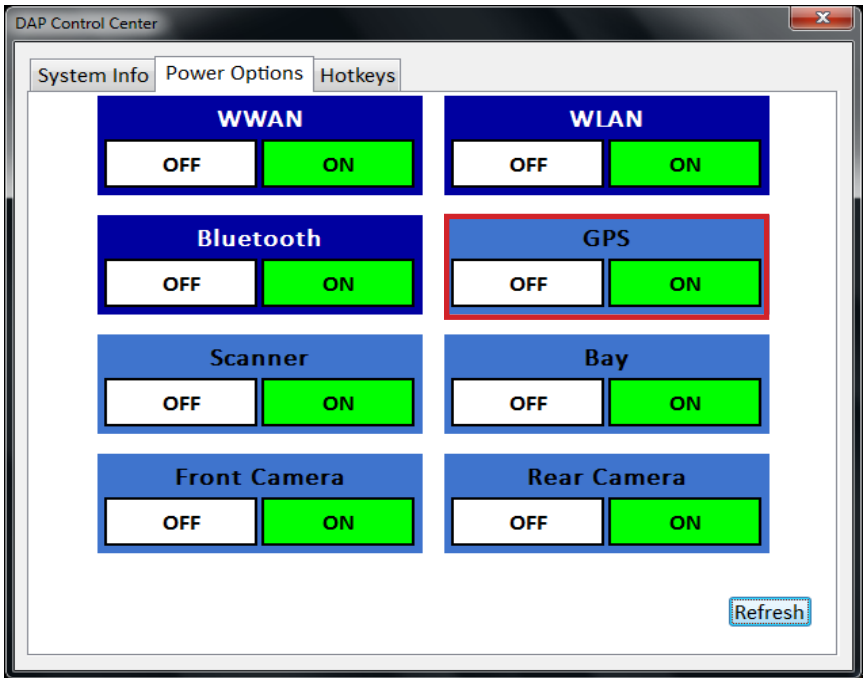
Turning the GPS On and Off

In case you need to turn the GPS on or off, perform the following:

1. Tap **Start** > **All Programs** > **DAP Technologies** > **DAP Control Center**.



2. Tap **Power Options** tab.



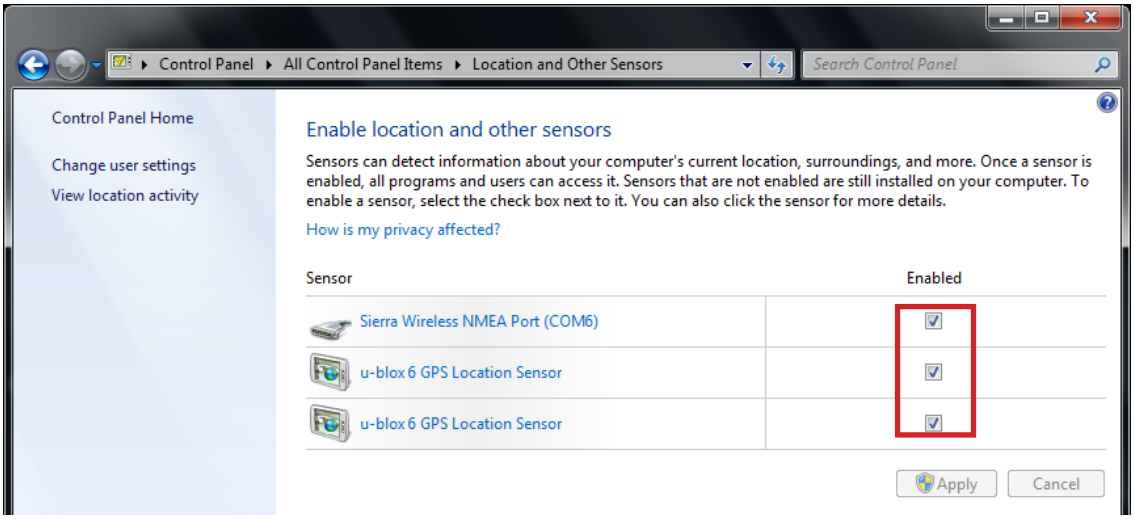
3. To turn the GPS on or off, tap **ON** or **OFF**.

Enabling the Location Sensors

The M9020 is equipped with the **u-blox 6 GPS Location Sensor**. By default, this location sensor is enabled.

Perform the following to enable the location sensors:

1. On Windows desktop, tap **Start** > **Control Panel** > **Hardware and Sound** > **Location and Other Sensors**.


Control Panel ▸ All Control Panel Items ▸ Location and Other Sensors
Search Control Panel
Control Panel Home
Change user settings
View location activity
Enable location and other sensors
Sensors can detect information about your computer's current location, surroundings, and more. Once a sensor is enabled, all programs and users can access it. Sensors that are not enabled are still installed on your computer. To enable a sensor, select the check box next to it. You can also click the sensor for more details.
How is my privacy affected?
Sensor
Enabled
Sierra Wireless NMEA Port (COM6)
u-blox 6 GPS Location Sensor
u-blox 6 GPS Location Sensor
Apply
Cancel

2. To enable/disable the sensors, use the check boxes.
3. Tap **Apply** to save and apply the changes.

Using u-center

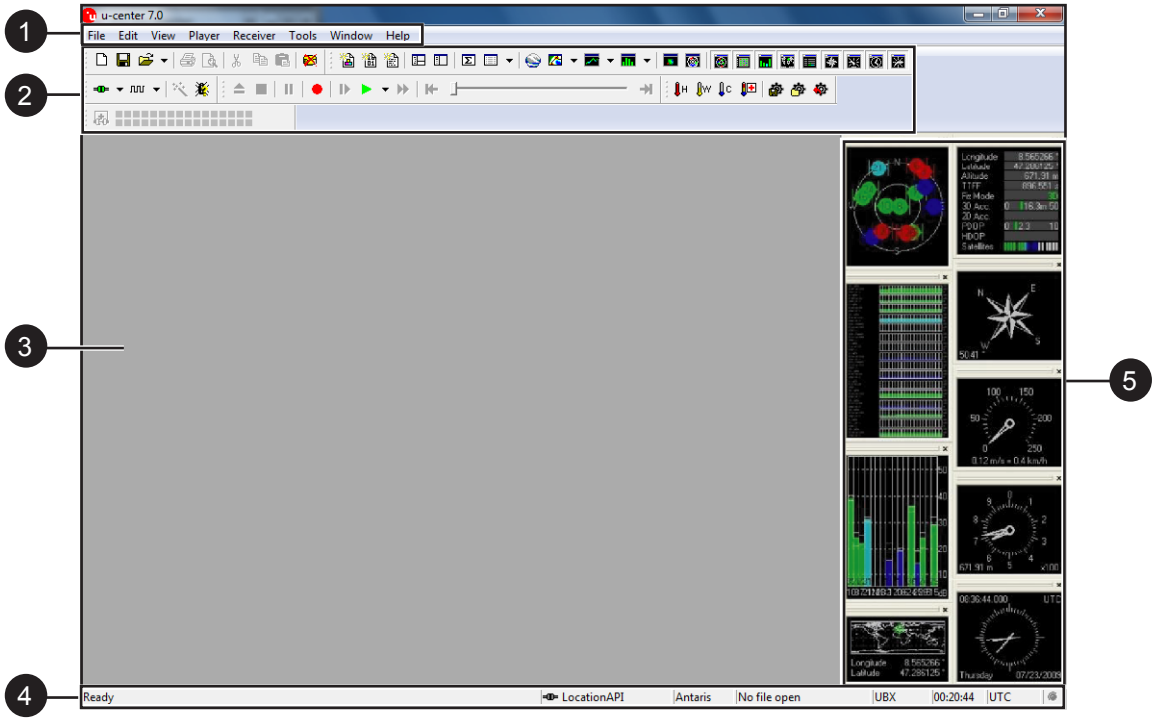
u-center is an application that displays position accuracy, road test position and trajectory, satellite tracking, time to first fix, etc. All processed data can be saved in ASCII format and opened using popular spreadsheet applications.

To open **u-center**, perform one of the following:

- Double-tap the **u-center** desktop shortcut icon.
- Tap **Start** > **All Programs** > **u-blox** > **u-center** > **u-center**.

The u-center Main Screen

If the GPS receiver is working correctly, the main screen displays the satellite position and level, data, altitude, compass, speed meter, etc.



No.	Item	Description
1	Menu Bar	Consists of eight menu items: • **File**: Allows you to create, save, open, close a log file or clear a database. • **Edit**: Allows you to copy, paste, delete or select text or set of information. • **View**: Allows you to open console windows, view maps, charts, camera, and select toolbars to display on the main screen. • **Player**: Allows you to record and play a log file. • **Receiver**: Allows you to configure the receiver settings, such as port, baudrate, sensor, network connection settings, etc. • **Tools**: Allows you to update the firmware and set application preferences. • **Window**: Allows you to select the layout of your workspace. • **Help**: Allows you to view help files.
2	Toolbars	Provides shortcuts to common tasks by tapping on the icon. **TIP:** If using a USB mouse, hold the mouse cursor over the button for a few seconds to view the button name. A brief description is also displayed on the status display area.
3	Window Area	Displays maps, console windows, charts and the camera view.
4	Status Display Area	Displays a brief description of the button function, communication information, GPS mode, file in use, operating and UTC time, protocol information, and GPS status.
5	Docking Window	Displays graphical GPS information, such as the satellite position, satellite level, satellite level history, world position, data, altitude meter, compass, speed meter, and watch.

NOTE: For more information on using **u-center**, see the u-center User Guide in **Start** > **All Programs** > **u-blox** > **u-center** > **u-center User Guide**.

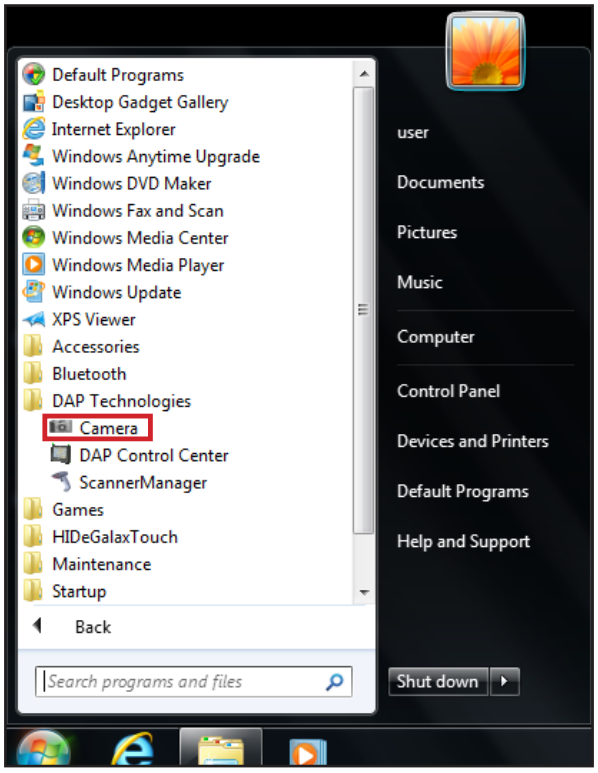
Using the Camera

Your M9020 has integrated front and rear cameras for taking photos.

Opening the Camera

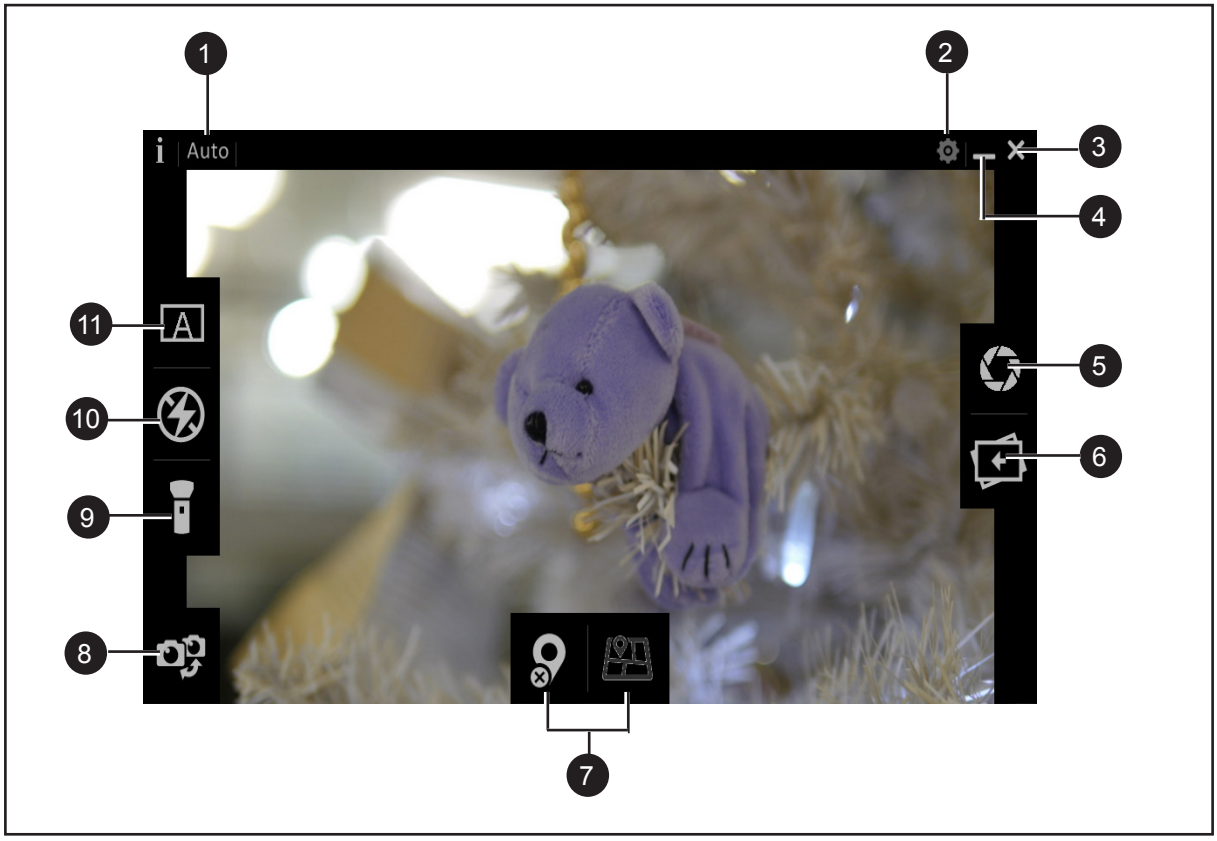
Perform one of the following to open the camera:

- Tap **Start** > **All Programs** > **DAP Technologies** > **Camera**.



- Press the camera shortcut key (📷).

The Camera Screen



No.	Item	Description
1	Shooting Mode	Shows the shooting mode (by default it is **Auto**).
2	Settings	Tap to view the camera settings. See “Camera Settings” on page 2-29.
3	Exit	Tap to close the camera screen.
4	Minimize	Tap to minimize the camera screen.
5	Shutter	Tap to capture a photo.
6	Open the Photo	Tap to open the captured photo.
7	/ Positioning	Tap to add/remove the GPS-based location information on the photo (disabled by default).
8	Switch	Tap to switch between front camera and rear camera.

No.	Item	Description
9	/ Flashlight	Tap to activate/deactivate the flashlight function (deactivated by default).
10	/ Flash	Tap to enable/disable flash (disabled by default).
11	Shooting Mode	The only shooting mode available on the M9020 is automatic.

Shooting Photos

1. Open the camera (see “Opening the Camera” on page 2-26).
2. Focus on your subject.
3. Tap to capture the photo.
4. By default, the photo preview is briefly shown on the screen.

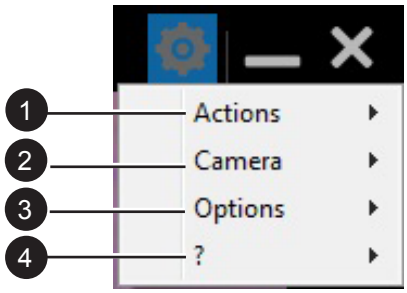
The preview screen automatically closes after 3 seconds. Do one of the following:

- Tap to capture the next image.
- Tap to see the image in Windows Photo Viewer.
- Tap to close the camera screen.

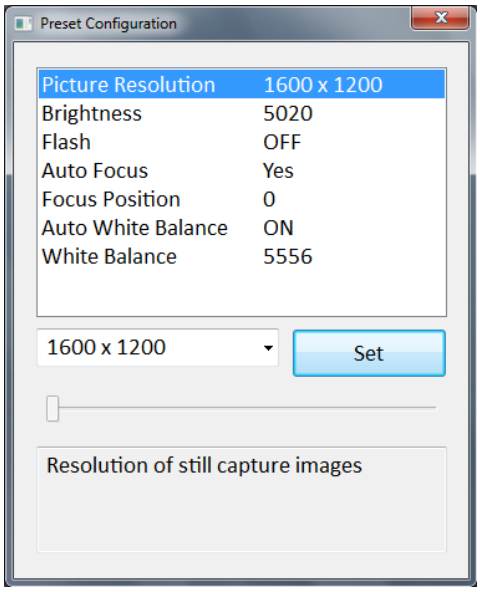
NOTE:
By default the system automatically creates a folder with the current date to the logged in user’s Pictures folder, and saves the images into that folder. For example, C:\Users\My Name-PC\Pictures\2013-12-16.

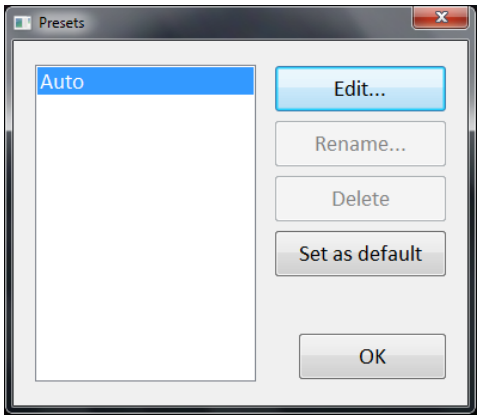
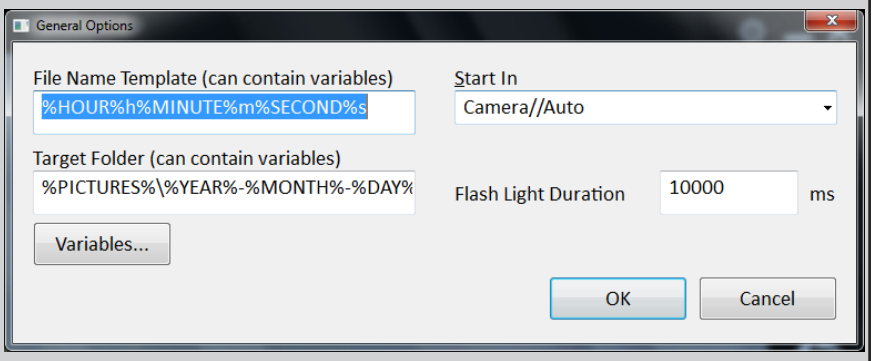
Camera Settings

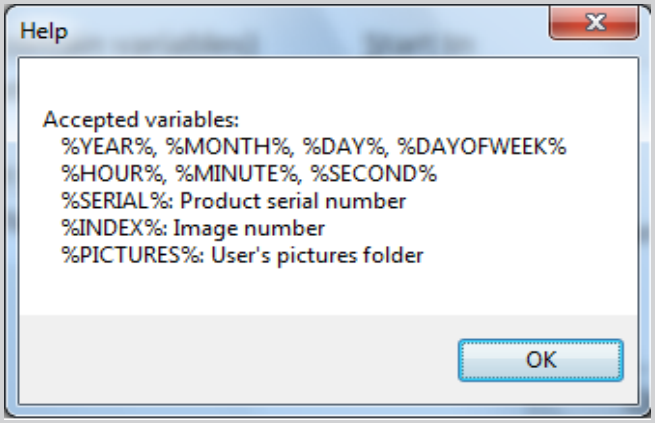
1. Tap to open the settings pop-up menu.

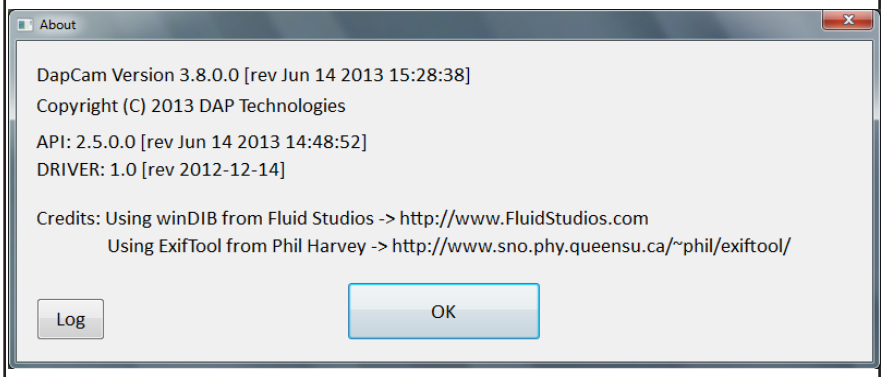


2. Modify the necessary settings.

No.	Item	Description
1	Actions	• **Capture**: Tap to capture an image. • **Show Image Folder**: Tap to open the image folder.
2	Camera	• **Advanced Settings...**: Tap to open the Preset Configuration page. On this page you can modify parameters such as the default picture resolution, brightness, flash and white balance of the camera. Tap on the parameter and select the desired value. After all modifications are done, tap **Set** to save changes. Tap to close the page. 

No.	Item	Description
2	Camera	• **Edit Presets...**: Tap to open the Presets page. On this page you can configure the default parameters of **Auto** shooting mode. Tap on the mode and then tap **Edit...**. You can also set the mode as a default mode, by selecting a mode and clicking on **Set as Default**. Tap **OK** to save changes and exit the page. 
3	Options	• **General...**: Tap to open the General Options page. On this page you can define the file name template, target image folder location, start in mode and flash light duration. When all modifications are done, tap **OK**.  Please note that you can use variables, to automate the image naming and image folder location and naming. Click the **Variables...** button for more details on variable names.

<table>
<tr><th>No.</th><th>Item</th><th>Description</th></tr>
<tr><td>3</td><td>Options</td><td> 

Tap OK to return General Options page.
• Export Configuration...: Tap to select the location where you want to save the configuration parameters. The parameters are saved in XML format.</td></tr>
<tr><td>4</td><td>?</td><td>• About: Tap to see the camera application information page. Tap OK, to return to the
• camera screen.
 
</td></tr>
</table>

3. When settings are complete, do one of the following:
   - Tap to capture an image.
   - Tap to see the image in Windows Photo Viewer.
   - Tap to close the camera screen.

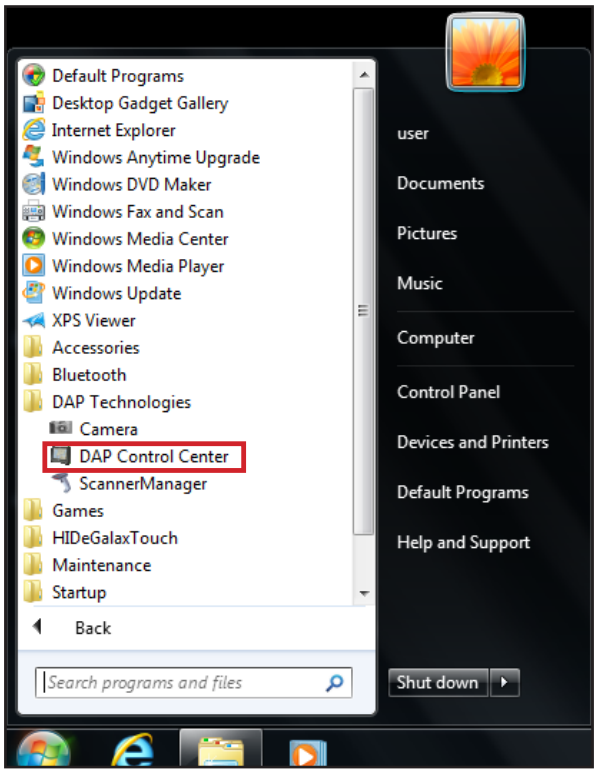
Using the DAP Control Center

Your M9020 has a control center for viewing system information, setting power options and defining hotkeys.

Opening the DAP Control Center

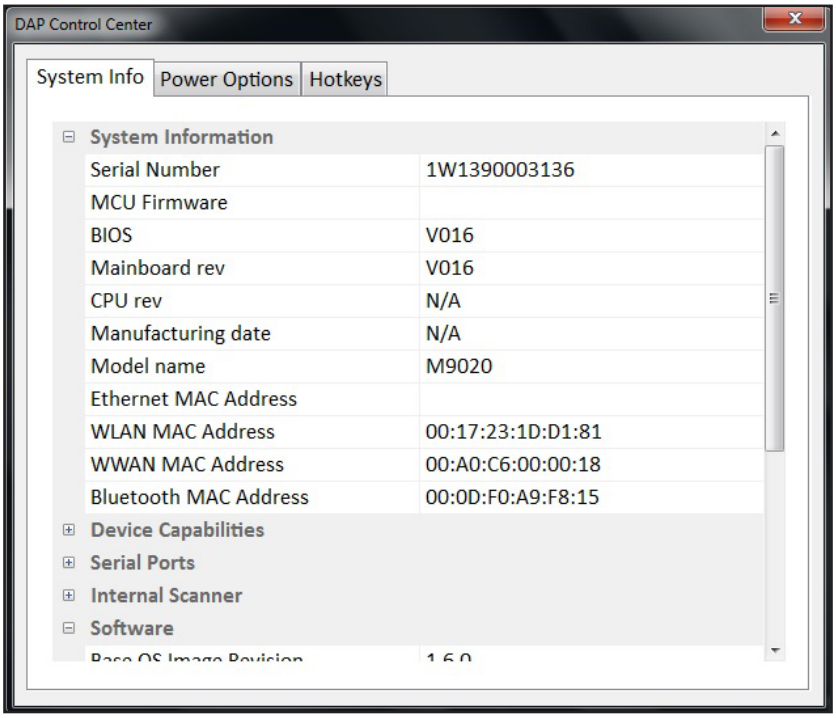
Perform the following to open the DAP Control Center:

- Tap **Start** > **All Programs** > **DAP Technologies** > **DAP Control Center**.



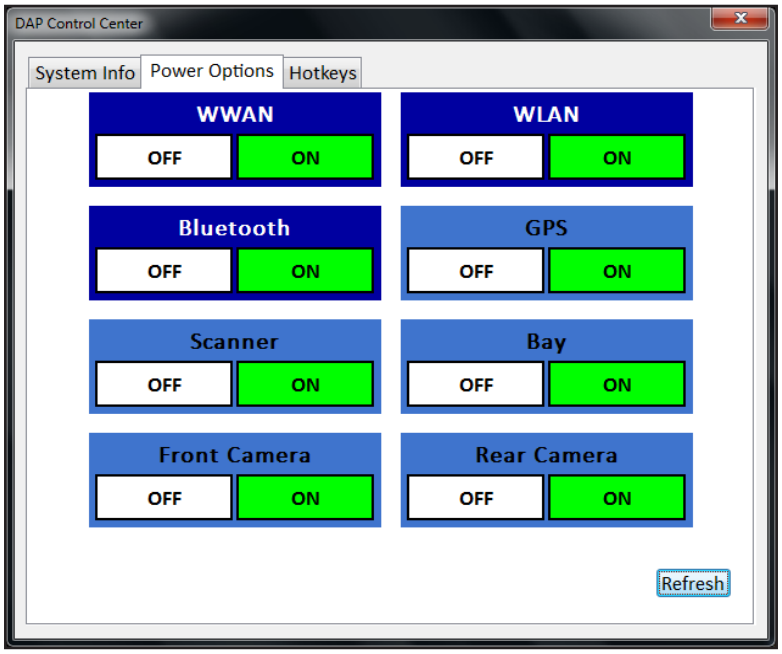
Viewing System Information

General system information is displayed in the **System Info** tab on DAP Control Center.



Setting Power Options

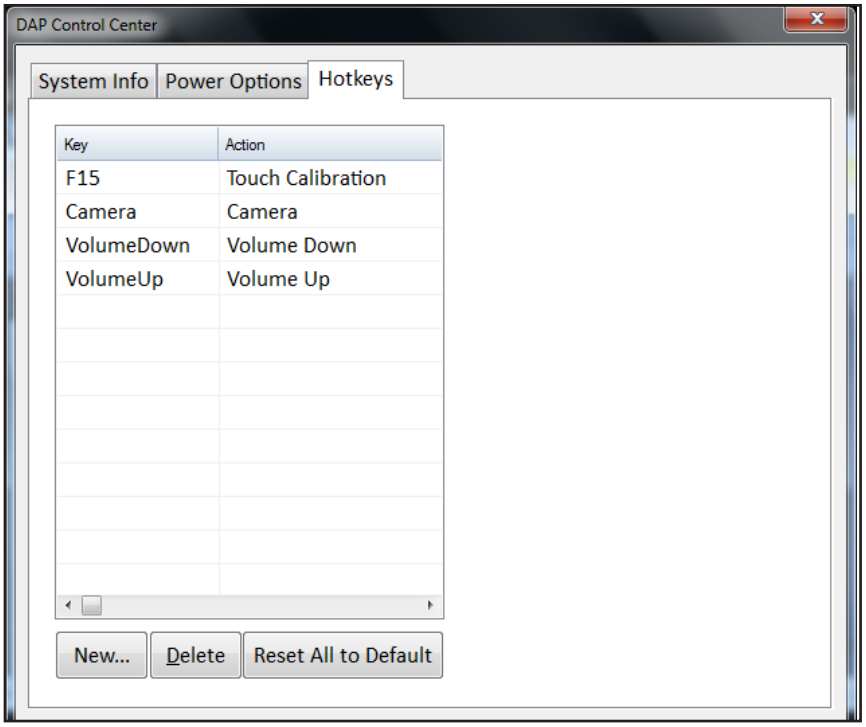
Tap the **Power Options** tab to control the power state of features such as the WWAN, WLAN, Bluetooth, GPS, Scanner and Cameras.



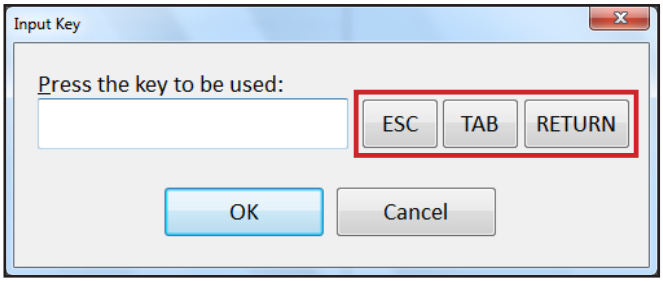
Defining Hotkeys

To define hotkeys, do the following:

1. Tap on **Hotkeys** tab. The Hotkeys page opens.



2. Tap **New...** (New...). The Input Key window opens.



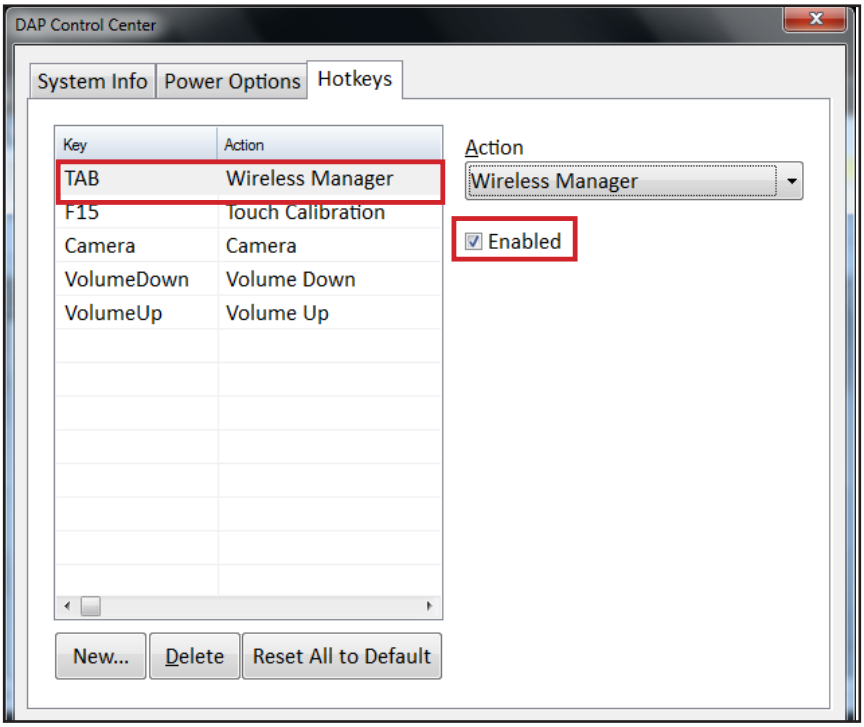
3. Type the key or key combination that will be defined as a hotkey. To assign a hotkey to the **ESC** (Escape), **TAB** (Tabular) or **RETURN** (Enter) keys, use the corresponding buttons. Tap **OK** to confirm.

   The selected hotkey appears in the table on the Hotkeys page.

4. To assign an action to a hot key, select it on the list and then tap the Action field. A list of actions is displayed on the screen. Select the desired action from the list.

> **NOTE:**
> To activate the hotkey, make sure the **Enabled** checkbox is checked.

In the following illustration, the **TAB** key is assigned to open the Wireless Manager.



5. After the hotkey is assigned, do one of the following:
   - Tap **New**, to assign the next hotkey. Repeat steps from 1 to 4.
   - Select the key and tap **Delete**, to delete the hotkey assignment.
   - Tap **Reset All to Default**, to restore the default configuration.
   - Tap to close the Hotkeys page.

Using the Barcode Reader

Your M9020 has a built-in barcode reader which is a 2D imager that you can use to scan barcodes.

> **NOTE:**
> - The built-in barcode reader is an optional accessory.
> - Alternatively, you can also use a Bluetooth scanner or connect an external barcode scanner to the USB or RS-232 ports.

Perform the following to scan barcodes using the built-in barcode reader:

1. Press and hold the barcode button (|||||) to active the barcode reader. The barcode reader lights red.
2. Point the beam to the barcode label. The device emits a beep sound when the barcode is read properly.

> **CAUTION:**
> - DO NOT aim the barcode scanner into the eyes. It may severely damage the eyes or may cause blindness if pointed directly into eyes.

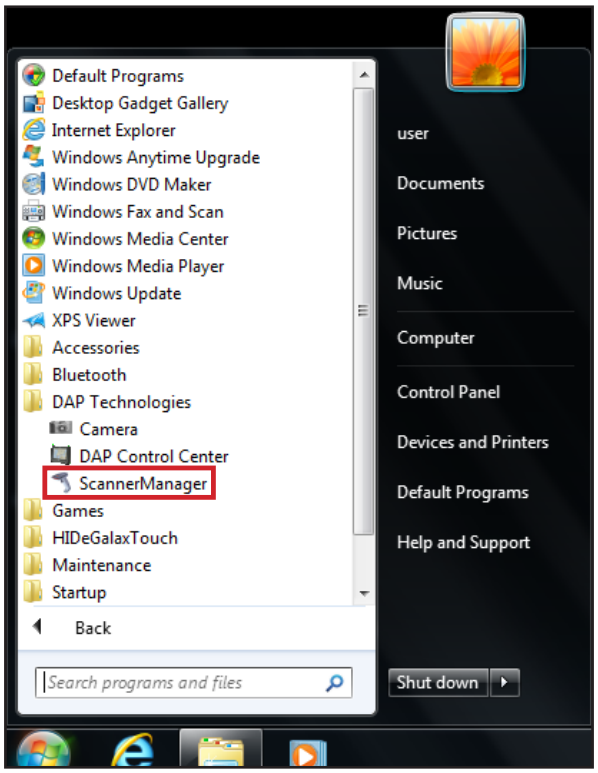
Using ScannerManager

The ScannerManager allows you to see the status and configure the settings of the Internal Scanner, Tethered Scanner, and Bluetooth Scanner.

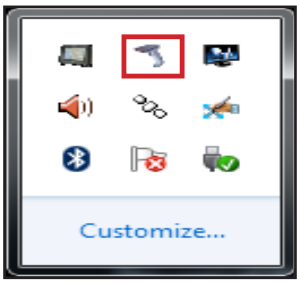
Opening the ScannerManager

Perform one of the following to open the ScannerManager application::

- Tap **Start** > **All Programs** > **DAP Technologies** > **ScannerManager**.

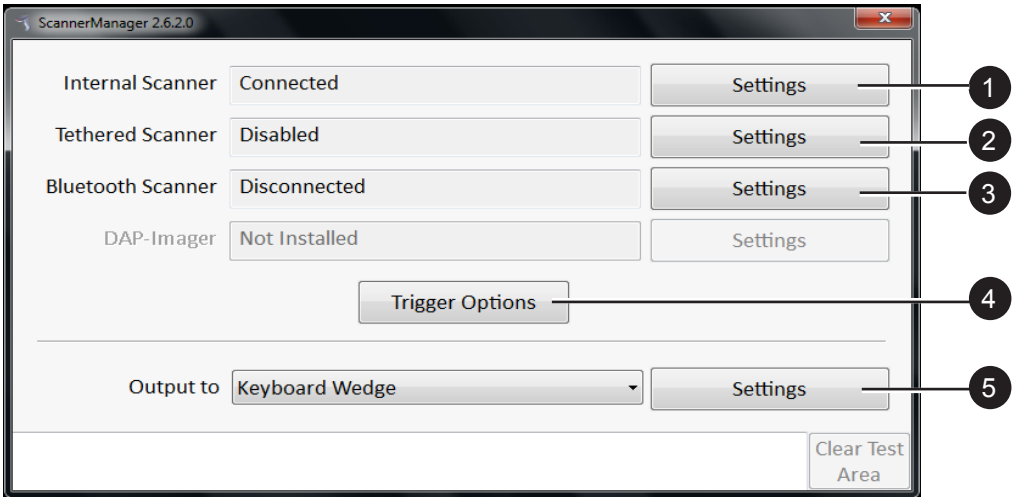


- Press the ScannerManager shortcut key ( ) icon on the taskbar.



Using the ScannerManager

1. Open the ScannerManager, see “Opening the ScannerManager” on page 2-37. The settings main page opens on the screen.



No.	Item	Description
1	Internal Scanner	By default the inner scanner is enabled and connected. Tap **Settings**, to modify the decoder properties, import/export parameters, or disable the internal scanner. Tap **OK** to return to the ScannerManager main page.
2	Tethered Scanner	By default the tethered scanner is disabled. Tap **Settings** to enable this scanner and do modifications to the serial link connection parameters. Tap **OK** to return to the ScannerManager main page.
3	Bluetooth Scanner	Tap **Settings** to configure the Bluetooth scanner connection parameters. See “Working With Bluetooth Scanners” on page 2-40. Tap **OK** to return to the ScannerManager main page.

No.	Item	Description
4	Trigger Options	By default, when you press the barcode button (▮▮▮▮▮), the barcode scanner activates. Tap **Trigger Options** if you want to remove or assign the barcode scanner a different shortcut key. Tap **OK** to return to the ScannerManager main page.

No.	Item	Description
5	Output to	a) Select where to direct the barcode scanning output. The available options are as follows: - Keyboard Wedge - Link*One - SDK. b) Tap **Settings** to modify the selected output configuration.

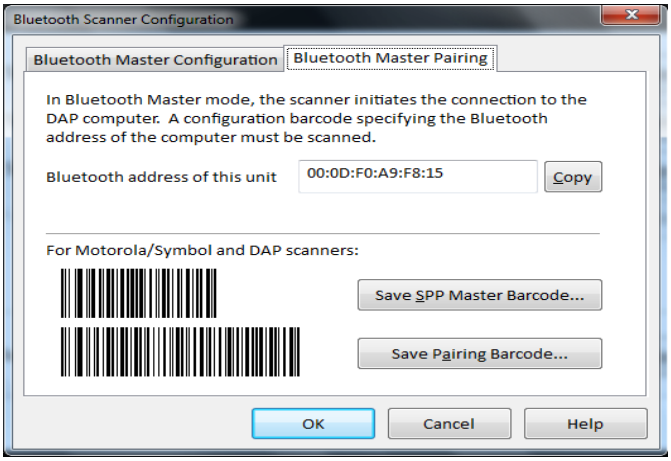
2. When the modifications are done, tap to close the ScannerManager page.

Working With Bluetooth Scanners

Scanner Manager recognizes Bluetooth scanners that are in master mode. This means that the scanner initiates the connection. In order to do that, it must have a way to know which unit to connect to.

Scanner manufacturers explain how to proceed to configure and pair their devices in their documentation. Usually, the user must create a special barcode based on the Bluetooth MAC address of the computer. Once that barcode has been generated, it does not change. It can be placed on the M9020, and the next time any scanner has to be associated with the unit, an operator simply needs to scan the code and wait the connection to be established automatically.

For DAP and Symbol/Motorola scanners, you can use the Bluetooth Master Pairing tab in the ScannerManager Bluetooth settings as follows:

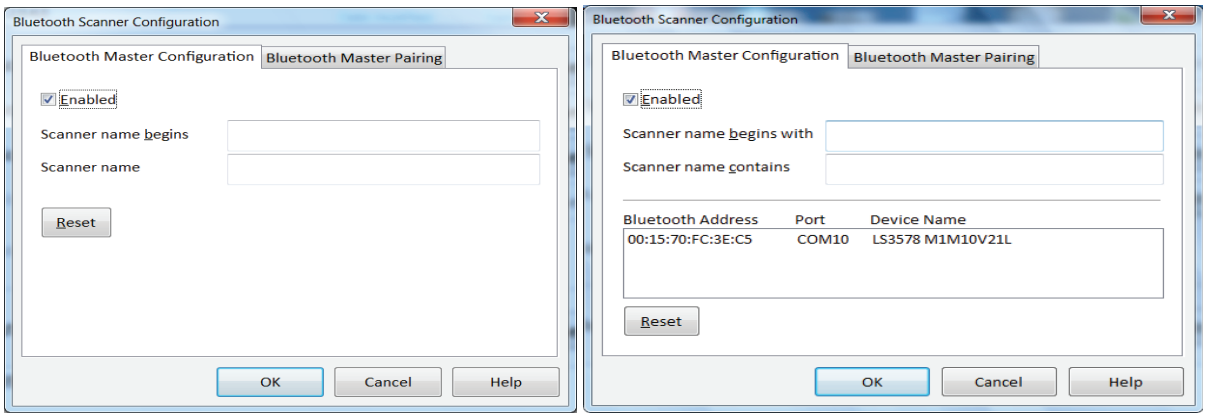

Bluetooth Scanner Configuration
Bluetooth Master Configuration
Bluetooth Master Pairing
In Bluetooth Master mode, the scanner initiates the connection to the DAP computer. A configuration barcode specifying the Bluetooth address of the computer must be scanned.
Bluetooth address of this unit
00:0D:F0:A9:F8:15
Copy
For Motorola/Symbol and DAP scanners:
Save SPP Master Barcode...
Save Pairing Barcode...
OK
Cancel
Help

Bluetooth Master Configuration When Using BlueSoleil or the Microsoft BT Stack

The Bluetooth Master Configuration dialog box allows the filtering of which Bluetooth scanner to accept a connection from. With the default values (empty), the first detected device using the Serial Port Profile (SPP) will be selected. In most cases, this is correct. If you are using more than one SPP devices, change the values to select, for example, only scanners from a given model.

> **NOTE:** The bottom list on “BlueSoleil Installed” illustration presents all the devices using the Serial Port Profile, that are currently connected.

Microsoft Bluetooth Stack ***BlueSoleil Installed***

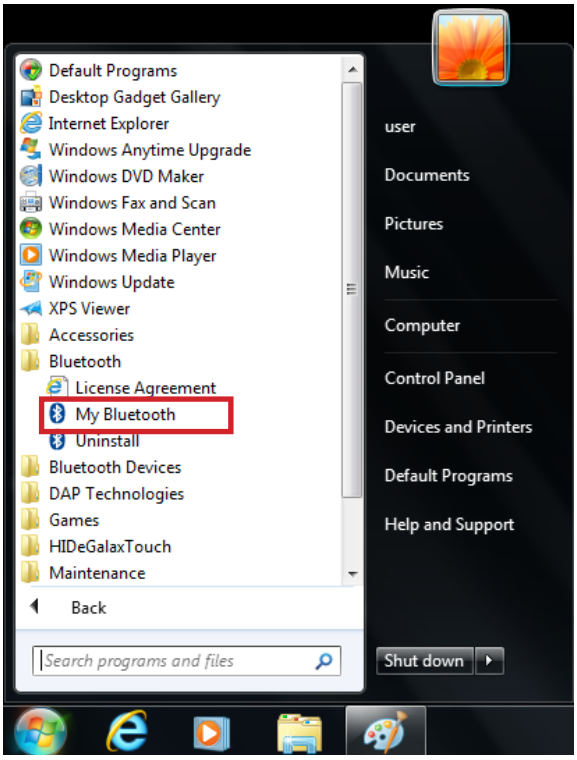


Bluetooth Master Configuration When Using an Incompatible Bluetooth Stack

In this situation, the Bluetooth Master Configuration page allows selecting the COM port to use to connect to the scanner. A virtual COM port must be created.

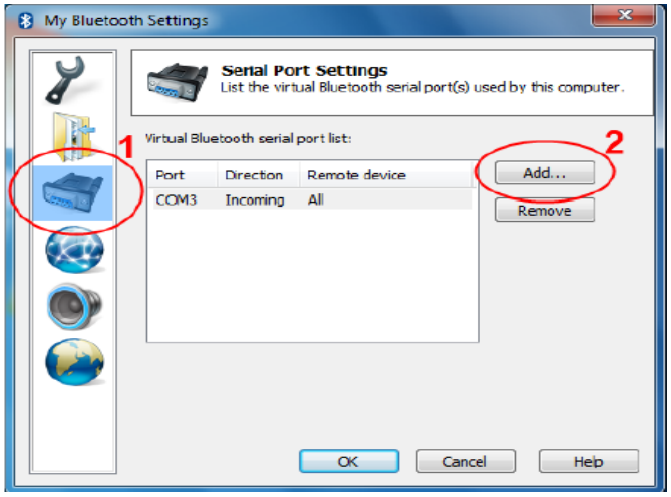
When using Motorola Bluetooth, perform the following, to create a Bluetooth virtual COM port:

1. Tap **Start** > **All Programs** > **Bluetooth** > **My Bluetooth**. My Bluetooth page opens.



2. Tap My Bluetooth. My Bluetooth settings page opens.

3. Tap on the connector ( ) icon (1). If no virtual COM port is shown, tap Add button and create a virtual port (2).



Creating a virtual COM port is complete.

4. Return to the ScannerManager Bluetooth Master Configuration to complete the scanner connection. See “Using ScannerManager” on page 2-37.

CHAPTER 3

Connecting Your M9020

You can extend the capabilities of your M9020 by connecting other peripheral devices. When using a device, be sure to read the instructions accompanying the device together with the relevant section in this chapter.

This chapter gives guidelines on installing and using the following devices:

- USB
- VGA
- Audio
- Serial

Connecting USB Devices

Your M9020 has one USB port available on the top of the compartment cover.

USB Port Connection

Use the USB port to connect USB devices, such as a flash disk drive, scanner, printer, keyboard, and mouse.

To connect a USB device, simply plug the device cable into the USB port of your M9020.

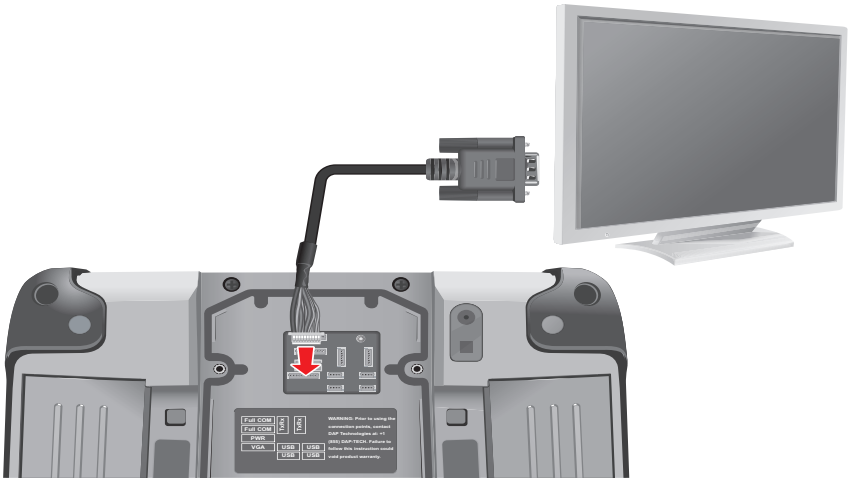
Connecting VGA Devices

Your M9020 has one VGA port for connecting VGA devices, such as an external monitor.

Perform the following, to connect a VGA device:

1. Release the compartment cover. See “Releasing the Compartment Cover” on page 1-12.
2. Gently disconnect the RS-232 and USB cables from the connectors on motherboard.

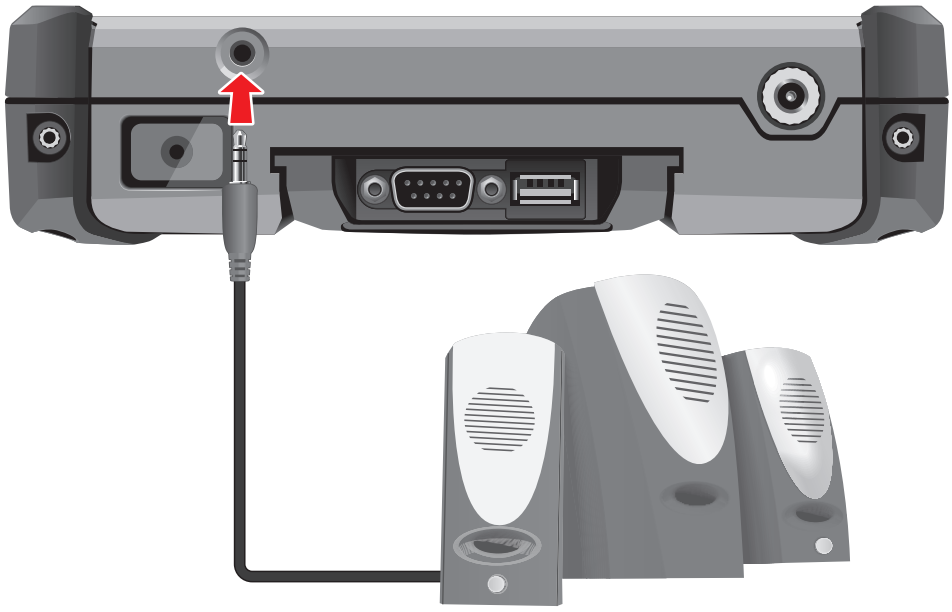
3. Remove the compartment cover.
4. Connect the VGA cable to the VGA connector of the M9020.
5. Connect the VGA cable to the VGA device.



Connecting Audio Devices

Your M9020 has one combo audio connector that supports both audio in and audio out devices. You can connect speakers, headphones, or a stereo headset.

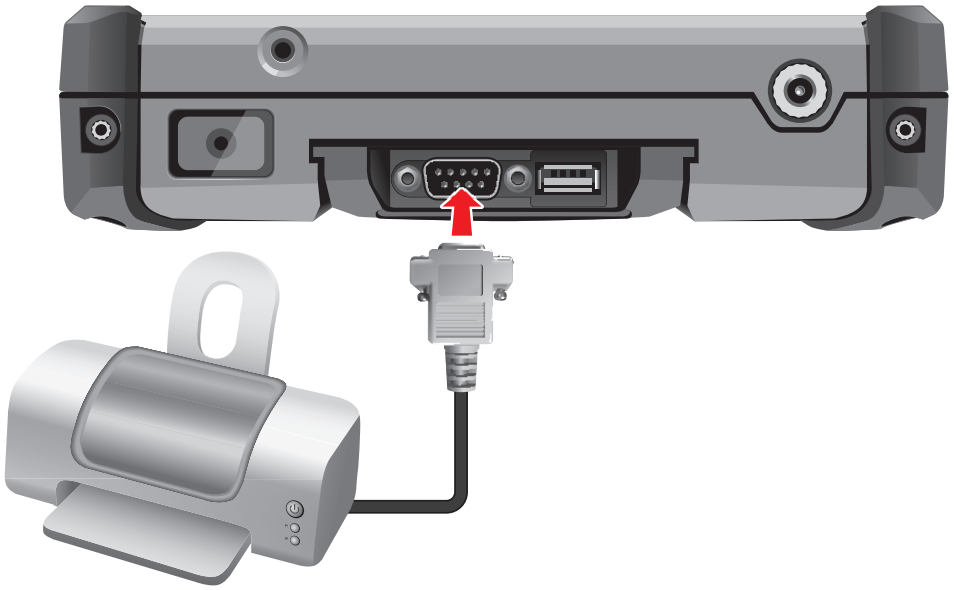
To connect an audio device, simply plug the device cable into the audio connector of your M9020.



Connecting Serial Devices

Your M9020 has one RS-232 port for connecting serial devices, such as barcode scanners, printers, among others.

To connect a serial device, simply plug the device cable into the RS-232 port of your M9020. Attach the screws to secure the connection.



CHAPTER 4

Managing Power

Your M9020 operates either on external AC power or on battery power.

This chapter tells you how you can effectively manage power. To maintain optimal battery performance, it is important that you use the battery in the proper way.

The topics in this chapter include:

- How to charge the battery pack
- How to check the battery level
- What happens when the battery is low and what actions to take
- What is Power Management
- How to save power

Battery Pack

The operating time of a fully charged battery pack depends on how you use the device.

When you use applications that often access peripherals, or when you stay connected to a wireless network, the operating time of the battery may be shortened.

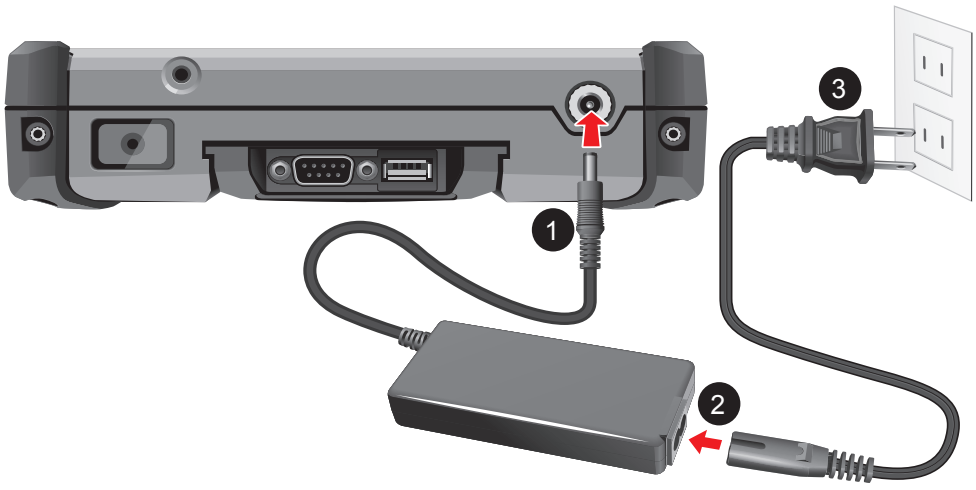
> **WARNING:**
> - Do not disassemble the battery pack. There are no user-serviceable parts inside. Doing so may present risk of exposure to harmful chemicals, explosion or fire.
> - Contact your local waste disposal service provider regarding the disposal or recycling of used battery packs.

Charging the Battery Pack

Perform one of the following, to charge the battery pack(s):

Via M9020

1. With the battery pack(s) installed, plug the DC cord of the AC adapter into the power connector of M9020.
2. Plug the female end of the AC power cord into the AC adapter.
3. Then plug the male end of the AC power cord into an electrical outlet.

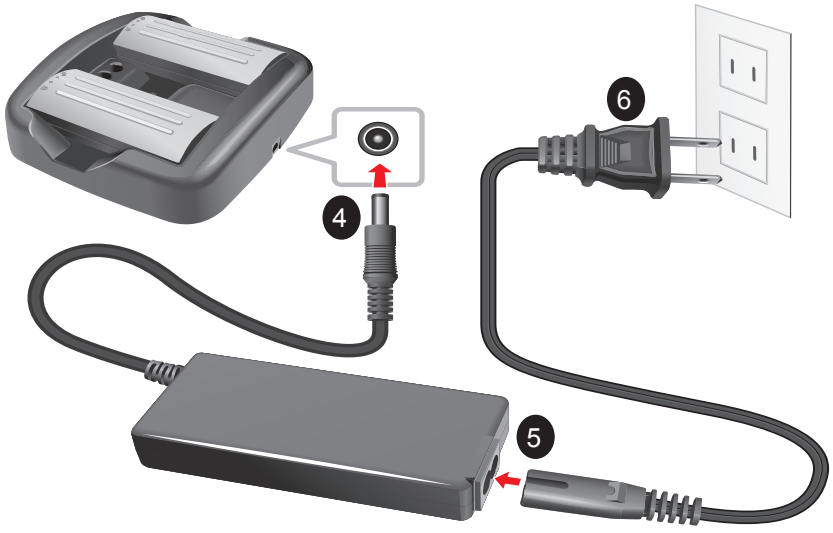


> **CAUTION:**
> - When you disconnect the AC adapter, disconnect from the electrical outlet first and then from M9020. A reverse procedure may damage the AC adapter or M9020.
> - When unplugging the connector, always hold the plug head. Never pull on the cord.

Via Charger (Optional)

1. From the top side of the battery pack, align and place the battery into the battery charger.
2. Press down on the battery pack.
3. Repeat the above steps to install the second battery pack if necessary.

4. Plug the DC cord of the AC adapter into the power connector of the battery charger.
5. Plug the female end of the AC power cord into the AC adapter.
6. Then plug the male end of the AC power cord into an electrical outlet.



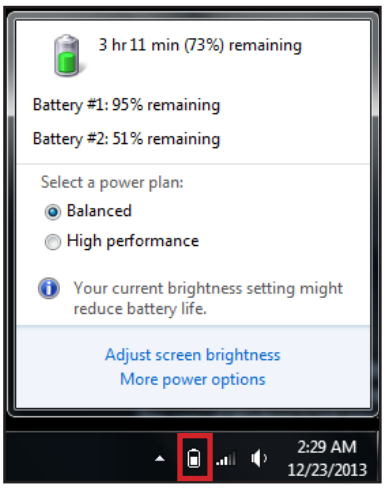
7. Wait until the LED indicator on the battery charger lights from “red” to “green”, indicating charging is finished.

NOTE:

- The additional battery pack is optional.
- The battery pack(s) are hot-swappable.

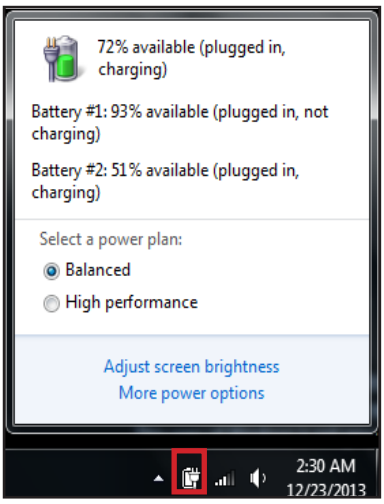
Checking the Battery Level

Tap the battery icon ( ) or ( ) on the taskbar. The window below appears.



On battery power

Or



While charging the battery

> **NOTE:** The battery capacity indicator shows only an approximate battery level status.

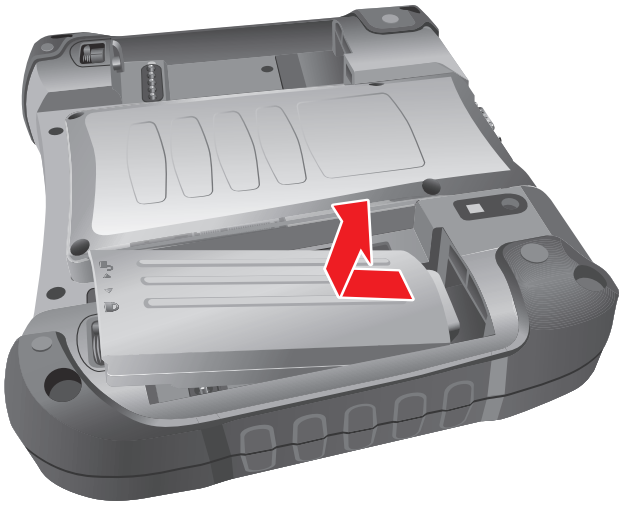
Replacing the Battery Pack

If you rely on battery power for a long period of time, consider purchasing additional batteries to allow a continuous use of the device.

To replace the battery pack, perform the following:

1. Place M9020 face down on a flat even surface.
2. Rotate the lock latch to the unlock (🔓) direction, until the battery pack is released from the socket.

3. Release the battery pack from the bay and remove.



4. Install the replacement battery pack (see “Installing the Battery Pack” on page 1-17).

Power Management

The power management feature helps reduce power consumption which extends battery life.

Your M9020 supports ACPI (Advanced Configuration and Power Interface) for power management. Power supply to different components is controlled on an as-needed basis. This allows maximum power conservation and performance at the same time.

Windows comes with pre-defined Power Options (**Balanced**, **Power Saver**, and **High Performance**) for you to select. You can access Power Options by tapping **Start** > **Control Panel** > **Power Options**. By default, your M9020 is in **Balanced Mode**.

For detailed information on power management, see Windows Help.

Power Saving Tips

Here are some practical suggestions that you can do to maximize the operating time of the battery:

- Enable Power Management. Choose a power plan that saves power. A power plan is a collection of hardware and system settings that control how your M9020 manages power.
- Decrease the LCD brightness to the lowest comfortable level.
- Shorten the length of time before Windows turns off the display.
- Many USB devices use power just by being connected. If you use a USB flash drive, unplug it when you are not using it.
- Deactivate the Wireless LAN function if you are not using it.
- Deactivate Bluetooth wireless feature if you are not using it.
- Turn off M9020 when you are not using it.

CHAPTER 5

Expanding Your M9020

You can optimize the capabilities of your M9020 by using a docking station. This chapter gives guidelines on installing and using the Vehicle Dock.

Connecting the Docking Station

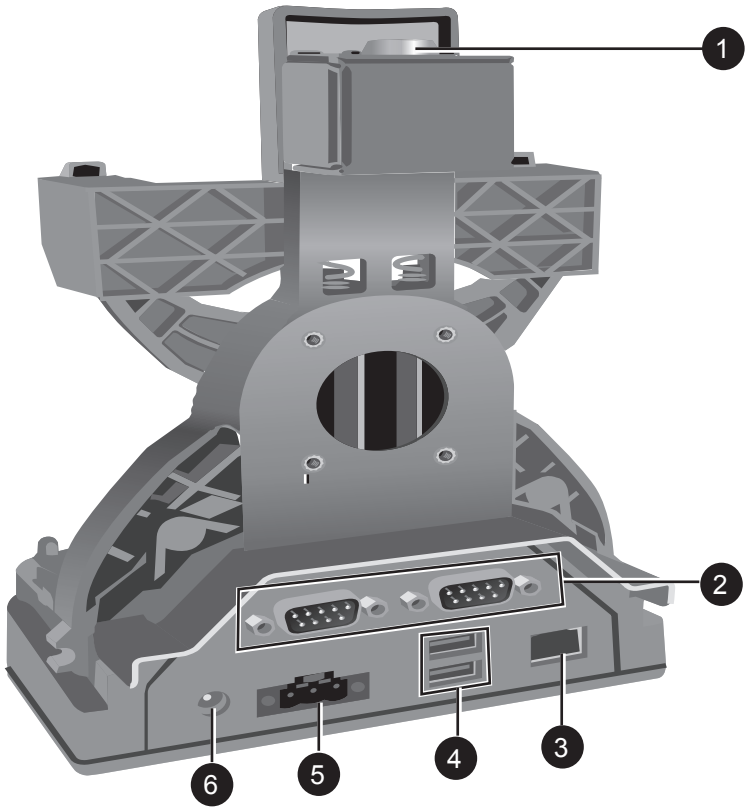
The Vehicle Dock, a docking station designed for use with your M9020, is available as an optional accessory.

Overview of the Vehicle Docking Station

Front View

No.	Item	Description
1	Docking Station Connector	For connection with the M9020.

Rear View



No.	Item	Description
1	Lock	Locking system to avoid the device being taken from the dock.
2	RS-232 Connectors	Connection for serial devices, for example, a scanner or a printer.
3	RJ-45 Connector	Provides connection to a LAN.
4	USB Ports	Connection for 2 x USB 2.0 compatible devices, for example, USB flash drives.
5	Bare leads DC connector	Connection for DC power supply with bare leads.
6	Power Connector	Connects to the AC adapter.

Docking the M9020

Perform the following to dock the M9020:

1. Align the golden connector and guide pin holes on your M9020 with the golden connector and guide pins on the docking station.
2. Insert M9020 into the guide pin holes on the docking station.

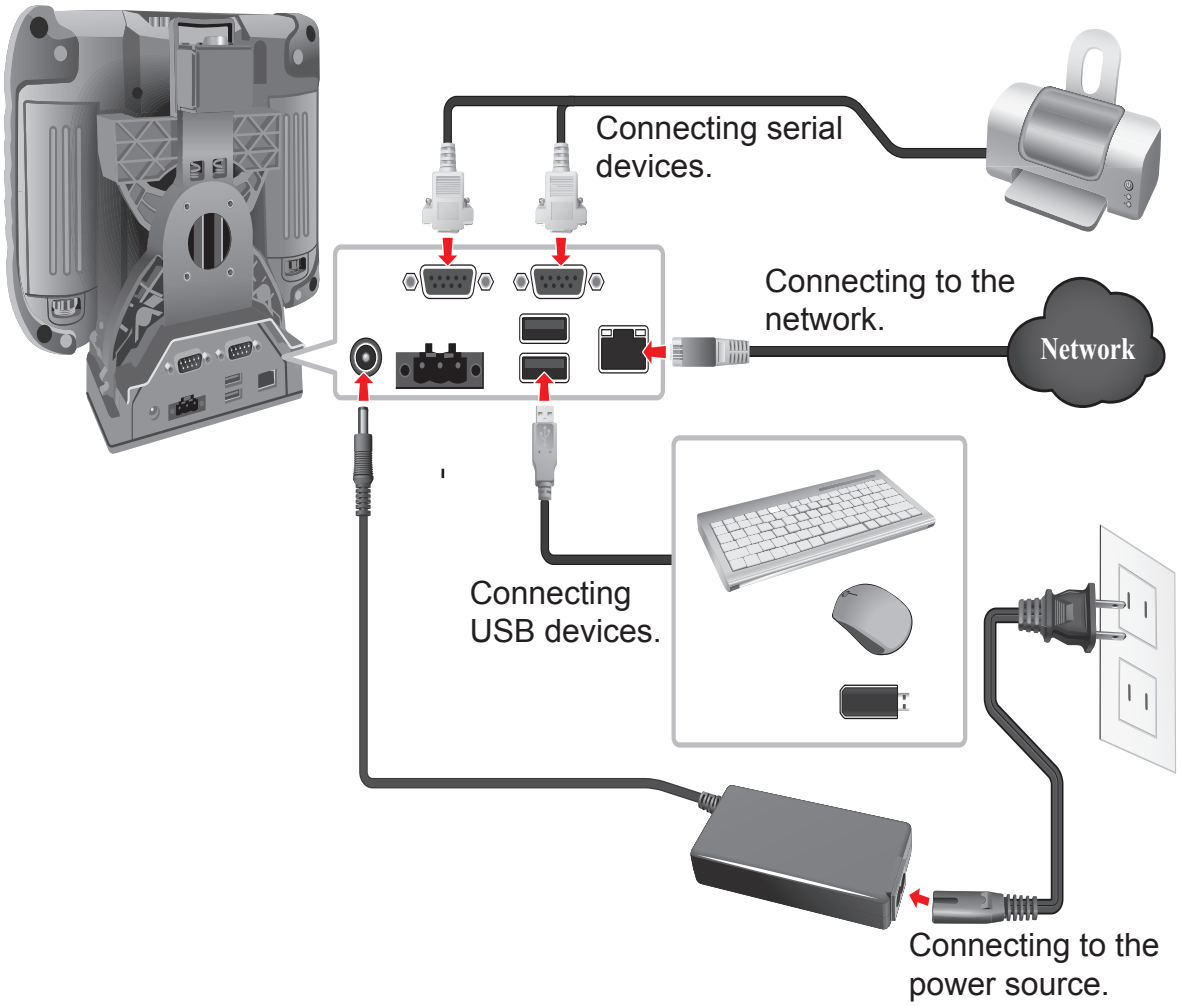
3. Slightly push the upper part of M9020 towards the docking station, until you hear the “click” sound, indicating that the device is fixed to the docking station.

Un-docking the M9020

Perform the following to un-dock the M9020:

While holding the M9020, press the release latch on the docking station and then lift the device to un-dock it.

Connecting the Docking Station



APPENDIX A

Maintenance, Troubleshooting and Specifications

This chapter covers the following topics:

- How to care for your M9020
- Troubleshoot your M9020
- M9020 Specifications

Taking Care of Your M9020

Location Guidelines

- Keep the M9020 at least 13 cm (5 inches) away from electrical appliances that can generate a strong magnetic field such as a TV, refrigerator, motor, or a large audio speaker.

General Guidelines

- Do not place heavy objects on top of the device as this may damage the display.
- To maximize the life of the backlight in the display, allow the backlight to automatically turn off as a result of power management. Avoid using a screen saver or other software that prevents the power management from working.

Cleaning Guidelines

- Use a soft cloth moistened with water or a non-alkaline detergent to wipe the exterior of the M9020.
- Gently wipe the display with a soft, lint-free cloth. Do not use alcohol or detergent on the display.

Touchscreen Guidelines

- Use your finger or the included stylus on the display. Using a sharp or metallic object may cause scratches and damage the display, thereby causing errors.
- Use a soft cloth to remove dirt on the display. The touchscreen surface has a special protective coating that prevents dirt from sticking to it. Not using a soft cloth may cause damage to the special protective coating on the touchscreen surface. To clean off hard to remove dirt, blow some steam on the particular area and gently wipe away using a soft cloth.
- Do not use excessive force on the display. Avoid placing objects on top of the display as this may cause the glass to break.

When there is a noticeable discrepancy in the operation of the touchscreen function (stylus touch does not correlate to the proper location on the screen), recalibrate the touchscreen display (see “Calibrating the Screen” on page 2-3).

Troubleshooting

If you encounter problems when using the M9020, try the following troubleshooting tips first to detect and solve the problem. If the problem persists, contact customer support.

Problem	Solution
The battery is not charging.	• Make sure the AC adapter is properly connected.
Nothing appears on the screen.	• The device may be in sleep mode. Press the power button to wake up the display. • The brightness level may be too low. Increase brightness (see “Special Function Keys” on page 2-5).
The screen suddenly turns blank and the power indicator goes off.	• Make sure the AC adapter is properly connected. • If using a battery pack, the battery pack may be depleted, replace or charge the battery.
I cannot use the wireless LAN feature.	• Make sure that wireless LAN feature is turned on.
Wireless LAN signal quality is poor.	• The M9020 may be out of range. Move the device closer to the access point or another wireless LAN device associated with it. • Check if your surroundings have interferences, such as microwave ovens or cordless phones. Move the device away from objects causing interference.
I cannot connect to another wireless LAN device.	• Make sure that the wireless LAN feature is turned on. • Make sure that the SSID setting is the same for every wireless LAN device in the network. • Restart the M9020. • Make sure the IP address or subnet mask setting is correct.
I cannot connect to another device with Bluetooth.	• Make sure that both devices have Bluetooth turned on. • Make sure that the distance between the two devices is within 10 meters and there are no walls or large obstructions between the devices. • Make sure that both devices are turned on and are configured to be discoverable. • Make sure that both devices are compatible.

Problem	Solution
The GPS application cannot find my location.	• Make sure that GPS is turned on. • Make sure that the GPS receiver and the location sensor are enabled in Control Panel. • The device may be out of coverage area. Move your M9020 outdoors or closer to a window. • The device may be out of coverage area. Move your M9020 outdoors or closer to a window.
No sound is produced.	• Make sure the volume is not muted. • If using an external audio device, make sure that the cable is properly connected.
I cannot project the M9020 display to another monitor.	• Make sure the VGA cable is connected correctly. • Make sure the output setting selected is correct.
Devices connected through the Vehicle Dock are not working.	• Make sure the Vehicle Dock is connected to an electrical outlet. • Make sure the cables are properly connected.

M9020 Specifications

Technical Specifications	
Operating System	• Windows® 7 Professional • (optional Windows® Embedded Standard 7
Processor	Intel® N2600 Dual Core 1.6 GHz
Memory	4GB DDR3
Display	• Sunlight-viewable • Glass-on-glass resistive touchscreen • Landscape or portrait orientation • Passive stylus or finger operation • 7-inch (1024 × 600)
Camera	• 5.0 MP rear camera with auto-focus and flash • 2.0 MP front camera
Storage	64 to 256 GB solid state drive
Connectivity	• WLAN: Summit 802.11 a/b/g/n • WWAN: Gobi™ 5000 4G LTE • GPS: » u-blox 6 position hybrid GSP/SBAS engine (WASS, EGNOS, MSAS) » A-GPS: AssistNow online and AssistNow offline services, OMA SUPL compliant • Bluetooth® V4.0+EDR • RFID antenna: Integrated, linearly polarized • RFID standards supported: » UHF - EPCglobal Gen 2 with DRM » AEI - eGo, SeGo, ATA, Allegro/Title-21, Gen2 • RFID frequency range: » UHF - EU: 865-868MHz; US: 902-928MHz » AEI - 865-868MHz, 902-928MHz
LED Status Indicator	Battery Full / Charging / Low / Power On
Keypad & Buttons	• Qwerty keypad • 5 programmable function keys • Dedicated scanner and camera buttons
Input/Output	Physical: • Power jack • 1× USB 2.0 • 1× RS-232 Via dock connector: • 1× USB 2.0 • 1× Ethernet 10/100 • 1× power 10-24v DC

Technical Specifications	
Expansion Slot	• Micro SD card slot (up to 32 GB) • 4 × USB 2.0 • 1 × power output 5V 2A • 1 × SVGA • 4 × RS-232
Barcode Scanning / Data Capture	• Short range barcode: 1D/2D barcode scanner • Camera: » 5.0 MP rear camera with auto-focus and flash » 2.0 MP front camera
Audio	• Intel® HD Audio • Speaker 1.3 watt • Stereo headset jack
Battery	2x External batteries: • Li-ion battery pack, 7.4 V, 3100 mAh (hot-swappable) Input: • 10-20 VDC, 2A
AC Adapter	AC 100 ~ 240V, 50 ~ 60Hz, DC 12V input
Regulatory	• FCC Class B • CE • RoHS • WEEE • ANSI/ISA 12.12.01, Nonincendive Electrical Equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations; CAN/CSA C22.2 No. 213-M1987, Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations • Lacer safety: » A21CFR1040.10 » IEC/EN 60825-1

Physical Specifications	
Dimensions	• 9.0 (L) × 7.3 (W) × 2.0 (H) inches • 230 (L) × 185 (W) × 51 (H) mm
Weight	• 2.5 lb. • 1334 g

Environmental Specifications	
Operating Temperature	-22 to +122 °F [-30 to +50 °C]
Charging Temperature	14 to +122 °F [-10 to +50 °C]
Storage Temperature	-22 to +158 °F [-30 to +70 °C]
Drop	Multiple 6-foot (1.8-meter) drops to concrete
ESD	15 kV air discharge, 8 kV direct discharge
Sealing	IP67 certified
Humidity	5%-95%, non-condensing
Vibration	MIL-STD-810F

NOTE: Specifications are subject to change without notice.

APPENDIX B

Regulatory Information

This appendix provides regulatory statements and safety notices about your M9020.

> **NOTE:** Marking labels located on the exterior of your M9020 indicate the regulations that your model complies with. Check the marking labels and refer to the corresponding statements in this appendix. Some notices apply to specific models only.

Important Information

ATTENTION: Pour réduire le risque d'incendie ou de choc électrique ne pas exposer l'appareil à la pluie ou à l'humidité. VERIFIER que le cordon électrique est la prise murale pour un delai d'inactivite prolongé. Pour arrêter complètement l'alimentation de l'appareil, débranchez le cordon d'alimentation de la prise AC. N'enlever ni le capot arrière ni les pièces internes de l'appareil. Contactez un personnel qualifié si nécessaire.

SA1965

AVERTISSEMENT ÉLECTRIQUE

Utilisé pour les instructions destinés à alerter l'utilisateur d'un CHOC ÉLECTRIQUE mortel ou de blessure grave en cas d'utilisation incorrecte de l'unité.

SA1966

AVERTISSEMENT

Utilisé pour les instructions destinés à alerter l'utilisateur d'un risque mortel ou de blessure grave en cas d'utilisation incorrecte de l'unité.

ATTENTION: Pour réduire le risque d'incendie ou de choc electrique ne pas exposer l'appareil à la pluie ou à l'humidité FAIRE le cordon électrique est DÉBRANCHÉ DE LA PRISE MURALE DANS UN DELAI DE PROLONGER INACTIVITÉ. De se désengager totalement LE POUVOIR DE L'UNITE, S'IL VOUS PLAÎT DEBRANCHER LE CORDON D'ALIMENTATION DE LA PRISE AC. NE PAS Romove le capot arrière, pas de PIÈCES À L'INTÉRIEUR. Contactez un personnel qualifié S'il faut le réparer.

SA1965

ELECTRIQUE AVERTISSEMENT

Sert aux instructions destin es alerter l'utilisateur d'un CHOC ÉLECTRIQUE mortel ou de blessure grave en cas d'utilisation incorrecte de l'unit.

SA1966

AVERTISSEMENT

Sert aux instructions destin es alerter l'utilisateur d'un risque mortel ou de blessure grave en cas d'utilisation incorrecte de l'unit .

Safety Information (EN)

Follow and adhere to all warnings and instructions on the screen. For your safety, please read all safety and operating instructions before using the M9020. Keep this manual for future reference.

1. Carefully read all recommendations and precautions for use before using this product.
2. Retain all recommendations and precautions for future reference as necessary.
3. Read and be sure to understand all warnings listed in the precautions.
4. Follow all operating precautions when using this product.
5. Use only a dry cloth to clean this product.
6. Do not place the product near any heat sources such as radiators, warm air intakes, stoves or other heat-generating devices (including amplifiers or other heat producing equipment).
7. Do not disregard the safety that a polarized or grounded connection can provide. A polarized connection consists of two plugs, one of which is larger than the other. A grounded connection has two blades and a third one that is grounded. If the main plug provided cannot be inserted into your outlet, consult an electrician to replace your obsolete outlet.
8. Protect the power cord from being crushed or pinched, particularly in the area of the plugs, any receptacles used, and the point of exit from the apparatus. Do not break off the ground pin of the power cord.
9. Use only accessories specified by the manufacturer.
10. Use only with accessories specified by the manufacturer or sold with the product.

11. Unplug this apparatus during lightning storms or when it is not being used for long periods.
12. Refer all servicing to qualified service personnel. A technical intervention is required when the apparatus has been damaged in any way or does not operate normally.

Informations de sécurité (FR)

Suivez et respectez tous les avertissements et instructions figurant sur l'écran. Pour votre sécurité, s'il vous plaît lire toutes les consignes de sécurité et de fonctionnement avant d'utiliser le M9020. Gardez ce manuel pour référence future.

1. Lire avec attention toutes les recommandations et precautions d'emploi avant d'utiliser ce produit.
2. Veuillez conserver ces recommandations et précautions pour référence future.
3. Lire et comprendre tous les avertissements énumérés dans les précautions d'emploi.
4. Suivre toutes les précautions d'emploi pour utiliser ce produit.
5. Utiliser exclusivement un chiffon sec pour nettoyer ce produit.
6. Ne pas placer le produit près de toute source de chaeur telle que radiateurs, arrivées d'air chaud, fourneaux ou autres appareils générant de la chaleur (incluant les amplificateurs producteurs de chaleur) .
7. Ne pas négliger la sécurité que procure un branchement polarisé ou avec raccordement à la terre, Un branchement polarisé comprend deux fiches dont l'une est plus large que l'autre. Un branchement à la terre comprend deux fiches plus une troisième reliée à la terre. Si la fiche secteur fournie ne s'insert pas dans votre prise de courant. consulter un 'électricien afin de remplacer votre prise obsolète.
8. Protéger le cordon d'alimentation de tout écrasement ou pincement, particulièrement au niveau des fiches, des réceptacles utilisés et à l'endroit de sortie de l'appareil. Ne pas casser la fiche de terre du cordon d'alimentation.
9. Utiliser uniquement les accessoires spécifiés par le constructeur.
10. Utilisez seulement des accessoires spécifiés par le manufacturier ou vendus avec le produit.
11. Débrancher cet appareil lors d'orages ou s'il n'est pas utilize pendant une longue période.
12. Faire exécuter le service par du personnel qualifié. Une intervention technique est requise lorsque l'appareil a été endommagé ou n'opère pas normalement.

About the Batteries

Nordic Lithium Cautions (for lithium-ion batteries)

CAUTION!
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. (English)

ATTENTION!
Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du mêre type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant. (French)

About the Adapter

- Use only the supplied AC adapter (Rating: Input DC 15V, 2.4A). Use of another type of AC adapter will result in malfunction and/or danger.
- Do not use the adapter in a high moisture environment. Never touch the adapter when your hands or feet are wet.
- Allow adequate ventilation around the adapter when using it to operate the device or charge the battery. Do not cover the AC adapter with paper or other objects that will reduce cooling. Do not use the AC adapter while it is inside a carrying case.
- Connect the adapter to a proper power source. The voltage requirements are found on the product case and/or packaging.
- Do not use the adapter if the cord becomes damaged.
- Do not attempt to service the unit. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

FCC Regulations

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user‘s authority to operate the equipment.

Operation on the 5.15-5.25GHz frequency band is restricted to indoor use only. The FCC requires indoor use for the 5.15-5.25GHz band to reduce the potential for harmful interference to co-channel Mobile Satellite Systems. Therefore, it will only transmit on the 5.25-5.35 GHz, 5.47-5.725 GHz and 5.725 –5.850 GHz band when associated with an access point (AP).

ANSI/ISA 12.12.01-2013

Nonincendive Electrical Equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations.

CAN/CSA C22.2 No. 213-M1987

Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.

CE Notice (European Union)

This device has been tested and found to conform with the limits set for a Class B product.

- EN 55022 — “Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment”
- EN 55024 — “Information technology equipment - Immunity characteristics - Limits and methods of measurement”
- EN 61000-3-2 — “Electromagnetic compatibility (EMC) - Part 3: Limits - Section 2”
- EN 61000-3-3 — “Electromagnetic compatibility (EMC) - Part 3: Limits - Section 3”
- EN 60950 — “Safety of Information Technology Equipment.”
- EN 55022 Emissions requirements

RF Exposure Information (SAR)

This device is compliance with SAR for general population /uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device was tested for operations with the device contacted directly to the human body to the back side of the EUT. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitted antenna during transmitting.

IC Regulations

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

This Class B digital apparatus complies with Canadian ICES-003

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

The device could automatically discontinue transmission in case of absence of information to transmit, or operational failure. Note that this is not intended to prohibit transmission of control or signaling information or the use of repetitive codes where required by the technology.

The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems; the maximum antenna gain permitted (for devices in the bands 5250-5350 MHz and 5470-5725 MHz) to comply with the e.i.r.p. limit; and The maximum antenna gain permitted (for devices in the band 5725-5850 MHz) to comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate, as stated in section A9.2(3). In addition, High-power radars are allocated as primary users (meaning they have priority) of the band 5250-5350 MHz and this radar could cause interference and/or damage to LE-LAN devices.

The County Code Selection feature is disabled for products marketed in the US/ Canada. For product available in the USA/ Canada markets, only channel 1~11 can be operated. Selection of other channels is not possible.

Important Note

IC Radiation Exposure Statement

This EUT is compliance with SAR for general population/uncontrolled exposure limits in IC RSS-102 and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528.

Toll Free : +1 (855) DAP-TECH (327-8324)
www.daptech.com

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Toll Free: +1 (800) 363-1993
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